

Some New Perspectives on India's Approach to Capital Account Liberalization

Introduction

Capital account liberalization remains a highly contentious issue. Proponents argue that it fosters financial globalization—a term that broadly encompasses cross-border flows of financial capital in various forms. This phenomenon, in principle, should allow for a more efficient allocation of financial resources across countries and also permit countries to share their country-specific income risk more efficiently thereby increasing economic welfare on both counts. Detractors have blamed capital account liberalization as being the root cause of the financial crises experienced by many countries and argue that the deck is particularly stacked against non-industrial countries, which have experienced few benefits but exposed themselves to considerable risks (see, for example, Bhagwati, 1998; Rodrik, 1998).

The polemics on both sides are again becoming heated as emerging market economies and even some low-income countries are having to cope with volatile capital inflows, even as major economies like China and India are contemplating further opening of their capital accounts. Meanwhile, there have recently been important advances in the academic literature. This is causing researchers to take a more nuanced approach to the issue and to frame the debate in terms of a complex set of cost–benefit tradeoffs. One of the key conclusions of the new literature is that the principal benefit of financial openness for developing economies may not be access to foreign capital that helps increase domestic investment by relaxing the constraint

* eswar.prasad@cornell.edu. I thank the participants at the Brookings–NCAER India Policy Forum especially the discussants for this paper, John Williamson and Partha Sen, for their helpful comments. I am grateful to Arvind Panagariya for his detailed and constructive comments, which have greatly improved the paper. Rahul Anand provided excellent research assistance on this paper. I also thank Vinay DCosta for help with gathering and interpreting data on India's capital controls.

imposed by a low level of domestic saving. Rather, the main benefits may be indirect ones associated with openness to foreign capital, including the catalytic effects of foreign finance on domestic financial market development, enhanced discipline on macroeconomic policies, and improvements in corporate governance as well as other aspects of institutional quality.

A major complication, however, is that economies that have weak initial conditions in certain dimensions seem to have much worse outcomes from their integration into international financial markets, in terms of both lower benefits and higher risks. For countries below these “threshold” conditions, the benefit–risk tradeoff becomes complicated and a one-shot approach to capital account liberalization may be risky and counter-productive. Some of these threshold conditions (for example, level of financial development and quality of domestic institutions) are similar to the list of indirect benefits, pointing to a difficult tension faced by low- and middle-income countries that want to use financial openness as a catalyst for those benefits but would then face the risks associated with being below the threshold conditions.

At the same time, the practical reality is that emerging market countries are having to adapt to rising financial globalization. Capital controls are being rendered increasingly ineffective by the rising sophistication of international investors, the sheer quantity of money flowing across national borders, and the increasing number of channels (especially expanding trade flows) for the evasion of these controls. Hence, emerging market economies like China and India are perforce grappling with the new realities of financial globalization, wherein capital controls are losing their potency as a policy instrument (or at least as an instrument that creates more room for monetary and other macro policies).

Developments in international financial markets also have a bearing on this issue. In recent years, emerging markets had been getting more capital inflows than they could comfortably handle, causing complications for domestic macroeconomic policies and also exposing these economies even more to the volatility of foreign capital. International investors, especially from industrial economies, had turned up in droves at the shores of emerging markets in recent years but are now retreating due to the recent global financial turmoil. It is likely that once financial markets settle down, they will again be lured by the strong growth prospects of many emerging markets as well as weak growth and low interest rates in their home countries. The same forces are also likely to cause domestic investors in emerging markets to resume repatriation of their capital from abroad.

Against this background, the objective of this paper is to provide a critical analysis of India’s approach to capital account liberalization program through

the lens of the new literature on financial globalization (Bhagwati's essay presages many of the ideas being developed in this literature). In recent years, the Reserve Bank of India (RBI) has taken what it calls a calibrated approach to capital account liberalization, with certain types of flows and particular classes of economic agents being prioritized in the process of liberalization (Reddy, 2007). I will evaluate the effectiveness of this approach in terms of the narrow objectives of influencing the quantity and composition of flows, and also in terms of macroeconomic consequences. This will involve an empirical characterization of the evolution of financial openness based on *de jure* measures of capital account openness as well as *de facto* measures of financial integration. I will also examine the evolution and structure of inflows and outflows. I will then relate these to the literature on the determinants and effects of external capital structure.

The cautious and calibrated approach has meant that India's capital account liberalization has proceeded in fits and starts but the net effect is that, over time, the capital account has become increasingly open and India has been rapidly integrating into international capital markets. While this approach has to some extent helped protect the country from the volatility induced by financial flows, a key question is whether this approach may have subtle costs in terms of efficiency and welfare that outweigh this benefit.

The main thesis of this paper is that, at this juncture, a more reasonable policy approach is to accept rising financial openness as a reality and manage rather than resist (or even try to reverse) the process of fully liberalizing capital account transactions. Dealing with and benefiting from the reality of an open capital account will require improvements in other policies, especially monetary, fiscal, and financial sector regulatory policies. This approach could in fact substantially improve the indirect benefits to be gleaned from integration into international financial markets.

This line of reasoning does not mean that capital account liberalization should be a key policy priority and that the remaining restrictions on the capital account should be dropped at one fell swoop. But it does imply that there are some subtle risks and welfare consequences that can arise from holding monetary and exchange rate policies as well as financial sector reforms hostage to the notion that the capital account should be kept relatively restricted for as long as possible. It may seem reasonable to maintain whatever capital controls that still exist in order to get at least some protection from the vagaries of international capital flows. Not only is this not a realistic proposition, but I will also argue that it could detract from many of the potential indirect benefits of financial integration. In summary, steady

progress toward a more open capital account may be the most pragmatic policy strategy.

In the next section, I provide an overview of the new literature on the benefits and risks of financial globalization. In the section titled “How Open is India’s Capital Account,” I describe the evolution of India’s financial openness based on a wide range of indicators. In the subsequent three sections, I provide a detailed analysis of the structure of and changes in India’s balance of payments, cross-border financial flows, and international reserves. In the final section of the paper, I discuss the implications of India’s approach toward capital account liberalization for monetary and exchange rate policies and for financial sector reforms. While full capital account liberalization is hardly an end in itself, it can provide a useful framework for setting in motion a broader set of macroeconomic reforms.

Paradoxical Results but Composition of Liabilities Matters

Despite the strong theoretical presumption that financial openness should boost growth in developing countries, macroeconomic evidence of the growth benefits of financial openness remains elusive (see Kletzer, 2004 and Kose et al., 2006 for surveys). Although there is a positive correlation between measures of financial openness and growth, this correlation vanishes once one controls for other determinants of growth such as financial development, quality of institutions, and macroeconomic policies. More recent evidence based on better measures of *de facto* financial openness or specific types of liberalization (such as equity market liberalizations) does show more positive effects. Analysis based on industry- or firm-level data is also more supportive of the efficiency and growth benefits of financial globalization. But this evidence is hardly conclusive.

Indeed, there is some remarkable new evidence that non-industrial countries that rely *less* on foreign capital have on average posted better long-run growth outcomes (Aizenman et al., 2007; Gourinchas and Jeanne, 2007; Prasad et al., 2007). This result is not just limited to the recent period of rising global imbalances, when some fast-growing economies like China have on net been exporting massive amounts of capital. This result holds up over much longer periods of time and is not specific to countries in any particular region. Rodrik (2007) interprets these new findings as suggesting that the real constraint to growth in many less-developed economies is investment not savings. Ineffectual financial systems may not be up to the

task of efficiently intermediating domestic savings into investment, let alone being able to intermediate foreign capital efficiently.

Given these empirical findings, a new paradigm is emerging that the main benefits of financial globalization may not be through the direct channel of providing more financing. Rather, the main benefits may be in terms of catalyzing financial market and institutional development, stimulating gains in efficiency through competition and access to new technologies, and disciplining macroeconomic policies (figure 1). There is accumulating evidence for this paradigm although it is by no means conclusive yet.¹ Nevertheless, this paradigm has important implications for empirical analysis of the effects of capital account liberalization and also for designing such liberalization programs.

A complication, however, is that there appear to be some threshold conditions that influence the cost–benefit tradeoff. Indeed, factors such as financial market development and the quality of institutions also seem to play a crucial role in determining the extent of benefits a country can derive from financial openness and also how vulnerable it is to the risks associated with capital flows. These thresholds are considerably lower for certain types of financial flows—foreign direct investment (FDI) and portfolio equity, in particular—and higher for debt inflows.² Indeed, there are many examples of how underdeveloped or poorly regulated financial markets and weak institutions can interact in ways that result in misallocation of foreign capital and make countries vulnerable to financial crises.³

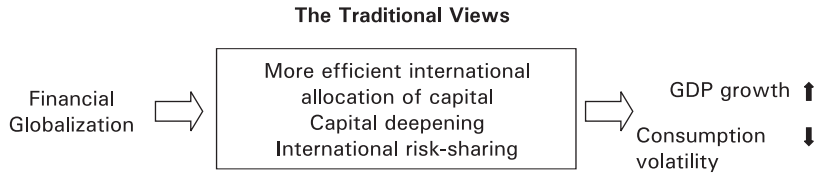
This framework clearly highlights some deep tensions in the process of capital account liberalization that cannot easily be avoided. But the collateral benefits-thresholds framework also suggests a way forward. If one can

1. Kose et al. (2006) develop this framework and survey the evidence on each of these potential indirect (or “collateral”) benefits (also see Mishkin, 2007). There is a growing body of evidence—based on country case studies as well as cross-country analysis using both macroeconomic and microeconomic (firm- and sector-level) data—that financial openness tends to positively influence financial development and institutional quality. The evidence that it boosts macroeconomic discipline remains sparse, however. For skeptical views about the notion that financial integration delivers such indirect benefits, see Eichengreen (2007) and Rodrik and Subramanian (2008).

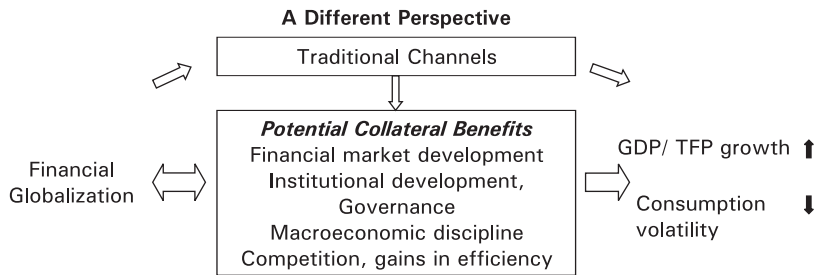
2. Kose et al. (2008) review the theoretical basis for such threshold effects and provide some quantitative evidence that thresholds matter, even though it proves difficult to pin down precisely the exact levels of various thresholds. Mukerji (2009) provides evidence that higher levels of financial development and stable macroeconomic policies enable countries to gain modest growth benefits from capital account convertibility, while weak financial systems and macroeconomic vulnerabilities increase growth instability without raising average growth.

3. See Krueger and Yoo (2002) and Desai (2003) for interesting narrative accounts.

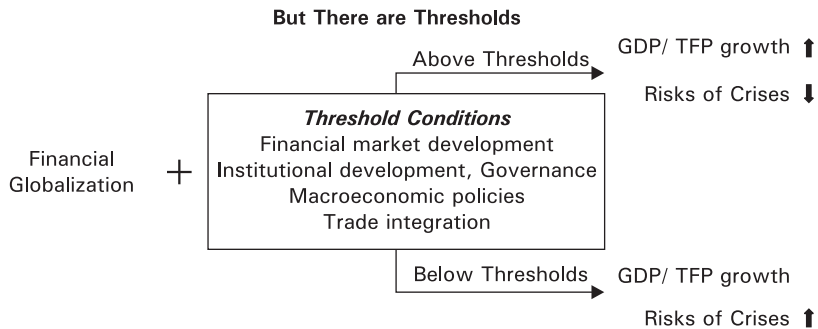
FIGURE 1. Gains from Financial Globalization: Alternative Views



The traditional view focuses on the importance of channels through which capital flows could directly increase GDP growth and reduce consumption volatility.



Our perspective acknowledges the relevance of the traditional channels, but argues that the role of financial globalization as a catalyst for certain collateral benefit may be more important in increasing GDP/TFP growth and reducing consumption volatility.



Financial globalization leads to better macroeconomic outcomes when certain threshold conditions are met. This generates a deep tension as many of the threshold conditions are also on the list of collateral benefits.

Source: Kose et al. (2006).

prioritize the indirect “collateral” benefits that a country needs, it should in principle be possible to undertake a controlled capital account liberalization that helps attain these benefits while reducing the risks. Thus, the framework encompasses a general approach that can still take account of country-specific circumstances and initial conditions. For instance, Prasad and Rajan (2008)

propose a method for countries experiencing sustained large inflows to securitize their reserve accumulation. This would, in a controlled way, help balance the inflows by encouraging outflows, and would deliver the indirect benefits of broadening financial markets and allowing citizens of these countries to benefit from international portfolio diversification.

Risk Sharing

It is also worth considering other potential benefits of financial openness rather than just its effects on GDP growth. One of the main presumed benefits of international financial integration is that it should facilitate international trade in financial assets, thereby enabling countries to diversify away their income risk and thereby smooth their consumption growth. Remarkably, the evidence shows that financial integration has, on average, led to *worse* risk sharing outcomes for emerging market economies during the period of globalization. Only industrial countries have been able to more efficiently share risk through the process of financial integration. Kose et al. (2007) document these patterns in the data. They also probe more deeply into why financial integration seems to hurt emerging markets on this dimension.

They find that stocks of FDI and portfolio equity liabilities are in fact associated with better risk sharing outcomes while stocks of external debt liabilities are not. Indeed, this goes a long way toward explaining the paradoxical outcomes for emerging markets. Until recently, financial integration for these economies largely took place in the form of debt accumulation. Not only are debt flows themselves procyclical, interest payments on external debt are typically not indexed to the business cycle, so they have a procyclical element to them as well. FDI and portfolio equity flows by their very nature involve a sharing of risk between foreign investors and their host countries. They have also tended to be more stable than debt flows. Interestingly, advanced economies do not seem to suffer similar problems from debt flows, which still dominate cross-border flows among these economies. This could be because they have better-developed financial markets and, typically, more flexible exchange rates, both of which act as shock absorbers in the face of capital flow volatility.

Productivity Growth

The literature about the indirect benefits of financial integration emphasizes that the main benefits of financial integration are in terms of total factor productivity (TFP) growth. Interestingly, while there has been a vast literature examining the effects of integration on output growth, scant attention has

been paid to its effects on TFP growth. In a recent contribution, Kose et al. (2008) find that *de jure* capital account openness is positively associated with TFP growth. Surprisingly, however, overall *de facto* financial integration is not correlated with TFP growth. This turns out to mask a novel and interesting result. FDI and portfolio equity liabilities are in fact associated with much higher productivity growth, while stocks of debt liabilities are negatively correlated with TFP growth, especially in economies with underdeveloped financial systems. What explains this difference? The indirect “collateral” benefits of financial flows tend to flow from FDI, in terms of technological and skill spillovers, and from portfolio equity, in the form of increased depth and innovations in equity markets. Financial sector FDI has also been found to help in the import of good governance practices and financial innovations (Goldberg, 2004).

A common theme that emerges from this new literature is that, in terms of evaluating the potential benefits and risks of financial integration, the composition of the stock of external liabilities is highly relevant in a number of dimensions. This is of course not a big surprise—for instance, it is in line with the earlier literature on sequencing of capital account liberalization. Nevertheless, it is comforting that some of the theoretical predictions about the benefits of financial integration can be recovered with a suitable disaggregation of the data.

This brief overview of the new literature on the benefits and costs of financial openness will help us in understanding the implications of India’s rising financial openness. To begin with, we need to know how open India’s capital account actually is.

How Open is India’s Capital Account

The traditional approach to measuring financial openness is to use measures of legal restrictions on cross-border capital flows. The conventional binary indicator of capital account openness is based on information contained in the International Monetary Fund’s (IMF) *Annual Report on Exchange Arrangements and Exchange Restrictions* (AREAER) for each of the IMF’s member countries (Schindler, 2007). Authors such as Miniane (2004), Chinn and Ito (2006), and Edwards (2007) have developed finer measures of capital account openness using disaggregated information from the AREAER.⁴

4. See Mohan (2008, Annex 1) for a comprehensive listing of capital controls still in place in India.

An alternative approach is to use a *de facto* measure that tries to take into account how much a country is integrated into international capital markets in practice.⁵ A measure of gross flows as a ratio to GDP captures two-way flows, which one would expect to see if economies were in fact sharing risk efficiently in a world with multiple financial instruments and agents with different risk profiles. Using the sum of gross inflows and outflows as a ratio to national GDP also yields a nice symmetry with the widely used measure of trade openness, which is the sum of imports and exports as a ratio to GDP.

However, such annual flows tend to be quite volatile and are prone to measurement error. To mitigate (but obviously not eliminate) these problems, Kose et al. (2008a) propose using the sum of gross stocks of foreign assets and liabilities as a ratio to GDP. For some purposes—particularly, risk sharing—the stock measures are more appropriate. For instance, if countries have large gross stocks of assets and liabilities, small exchange rate changes can have large valuation effects and serve as a mechanism for risk sharing even if net asset positions are small. For emerging market countries, another relevant measure of *de facto* financial integration is the ratio of gross stocks of external liabilities to GDP—a cumulated measure of inflows that is most closely related to the notion of openness to foreign capital that could be associated with technological and other spillovers. We take these measures of *de facto* financial integration from the widely used database created by Lane and Milesi-Ferretti (2007).

There is an important information in both the *de jure* and *de facto* measures. *De jure* measures are relevant for analysis of the effects of capital account liberalization policies. But the existence of capital controls often does not accurately capture an economy's actual level of integration into international financial markets. These measures do not capture the degree of enforcement of capital controls (or the effectiveness of that enforcement), which can change over time even if the legal restrictions themselves remain unchanged. Many countries with extensive capital controls have still experienced massive outflows of private capital, while some economies with open capital accounts have recorded few capital inflows or outflows. For instance, despite its extensive regime of capital controls, China has not

5. Another approach has been to look at price-based measures of asset–market integration. However, there are serious practical problems in using such measures for developing economies. Returns on financial instruments in those economies may incorporate a multitude of risk and liquidity premia that are difficult to disentangle. Even interest parity conditions sometimes do not hold because of inefficiencies and the lack of depth in some of these markets.

been able to block inflows of speculative capital in recent years (Prasad and Wei, 2007). A further complication is that despite the extensive coverage of the IMF's annual AREAER publication, there could be other regulations that effectively act as capital controls but are not counted as controls. For instance, prudential regulations that limit the foreign exchange exposure of domestic banks could, under certain circumstances, have the same effect as capital controls.

The *de facto* measure may be conceptually more appropriate to the extent that one is interested in the effects of an outcome-based measure of financial integration. On the other hand, many of the indirect benefits of financial integration may be vitiated by the presence of capital controls. Efficiency gains from competition, technology transfers, spillovers of good corporate and public governance practices, and so on, may be associated with an open capital account. Inward flows that manage to circumvent capital account restrictions are much less likely to convey many of the indirect benefits of financial integration. Many authors have also pointed out that capital controls can impose significant distortionary costs at the microeconomic (firm or industry) level, even if economic agents find ways to evade those controls (see the survey by Forbes, 2007).

How does India stack up on these different measures of financial openness? Table 1 presents some summary statistics on each of the measures of *de jure* capital account openness discussed above at different points of time. For each measure and each date, the table shows the median value for the full sample of countries, different values for emerging market countries, and the value assigned to India. By any of these measures, it looks like India is at the low end of the distribution of the respective capital account openness measure in 1995. There is a trend increase over time in average capital account openness for the full sample of countries. By 2005, India remains near the bottom of the distribution of Chinn–Ito measures but moves up significantly as per the Edwards measure.⁶ These are all relatively crude measures of *de jure* openness, based on a reading of the IMF's annual AREAER reports on each country. But in India's case, they do signal that there are some restrictions on capital account transactions even in categories of flows that have been liberalized (even minimal registration requirements do get counted as restrictions).

6. A different measure of *de jure* capital account openness is the equity market liberalization indicator created and used by Bekaert and Harvey (2000) and Henry (2000). This is considered a one-off liberalization that occurs when domestic equity markets are opened up to foreign investors. These authors list India as having liberalized its equity markets in 1992 (and China as having done so in 1994).

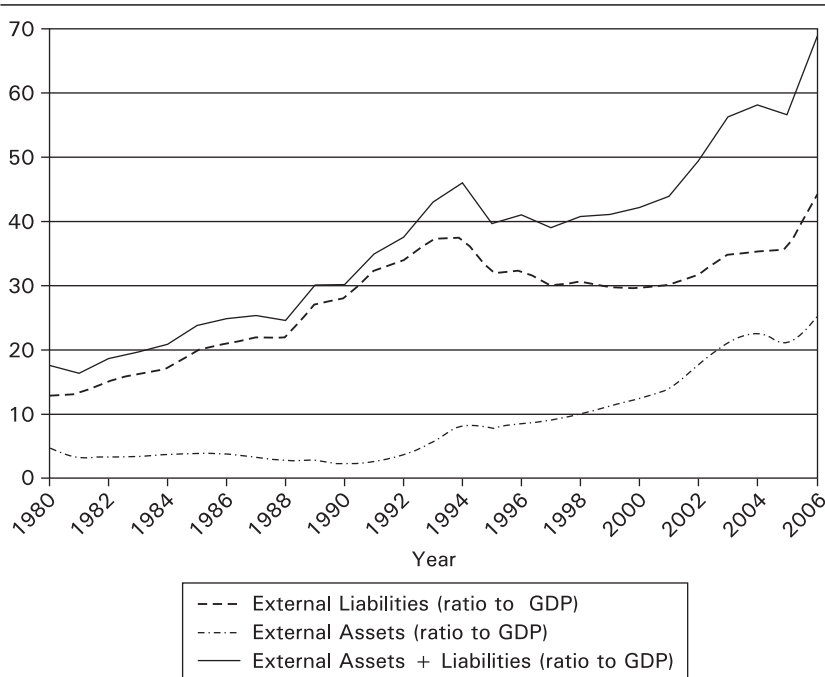
TABLE 1. *De Jure* Capital Account Openness

	<i>Full sample</i>	<i>Emerging markets</i>			<i>India</i>	<i>China</i>
	<i>Median</i>	<i>Minimum</i>	<i>Median</i>	<i>Maximum</i>		
<i>Chinn and Ito</i>						
1985	-1.13	-1.80	-1.13	2.54	-1.13	-1.13
1995	-0.09	-1.80	-0.09	2.54	-1.13	-1.13
2006	0.14	-1.13	0.03	2.54	-1.13	-1.13
<i>Edwards</i>						
1985	50.00	12.50	37.50	75.00	25.00	37.50
1995	75.00	25.00	50.00	100.00	25.00	37.50
2000	81.25	37.50	62.50	100.00	75.00	37.50
<i>Miniane</i>						
1985	0.86	0.83	0.86	1.00	0.83	
1995	0.43	0.71	0.86	1.00	0.83	
2000	0.36	0.71	0.86	0.86	0.86	

More substantively, the RBI has in fact eased a number of controls, both on inflows and outflows. For instance, although capital outflows by individuals are in principle still restricted, each individual is allowed to take up to US\$ 200,000 of capital out of India each year, a generous ceiling by any standard.⁷ The restrictions on outflows by Indian corporates are even weaker. As for inflows, FDI inflows into certain sectors such as retail and banking are restricted, and foreign investors are not allowed to participate in the government debt market. These restrictions are gradually being lifted. Equity market investments are permitted by registered foreign institutional investors (although there are limits on their ownership shares in certain types of Indian firms), and those who do not wish to register can invest only indirectly through an instrument called participatory notes, which are tightly regulated by the government.

We now turn to India's *de facto* integration with international capital markets. Figure 2 shows that gross external liabilities, gross external assets, and the sum of these two variables (expressed as ratios to GDP) have all increased significantly in recent years, indicative of the rapid pace at which India has been integrating into international capital markets. From 1980 to the mid-1990s, the total integration measure rose by about 25 percentage points, with almost this entire increase accounted for by an increase in

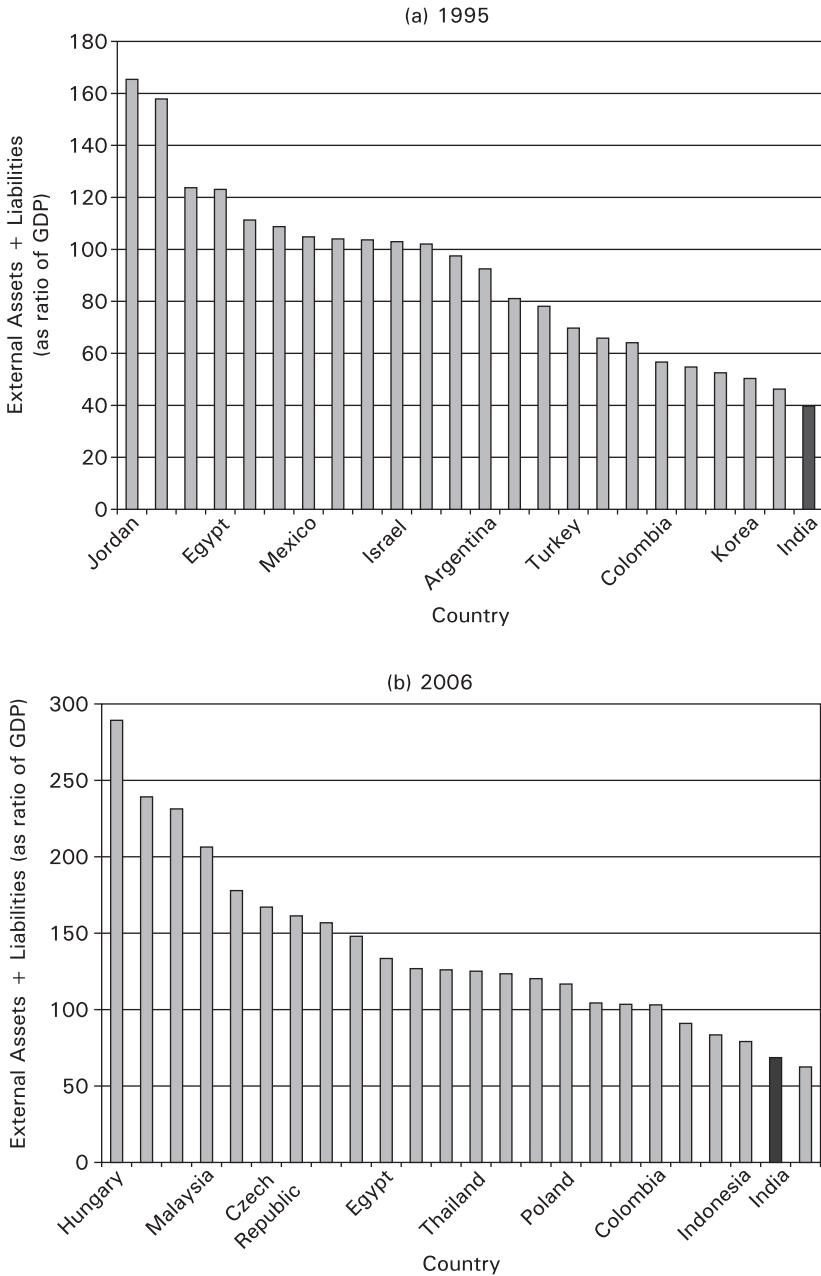
7. There are a few minor and relatively innocuous restrictions on these outflows (for example, money cannot be taken abroad without RBI permission for margin calls to a small group of neighboring countries and to countries identified as not cooperating with international anti-money laundering regulations).

FIGURE 2. *De Facto* Financial Openness: Emerging Markets

Source: Lane and Milesi-Ferretti (2006) dataset and author's calculations.

external liabilities. In the mid-1980s, especially with the onset of the Asian financial crisis, *de facto* integration leveled off although it is interesting to note that foreign assets continued to increase gradually during this period. From 2000 to 2006, the integration measure shot up by nearly 26 percentage points, with accumulation of external liabilities and assets accounting in almost equal part for this increase.

Nevertheless, on a cross-country comparison and relative to its size, India appears to have one of the least financially open economies amongst the group of emerging markets. Figures 3a and 3b show that India was near the bottom of the distribution of the preferred *de facto* integration measure; its relative position among emerging markets remains quite stable despite the rapid increase in its absolute level of integration. Thus, in terms of both *de jure* and *de facto* measures, India's low level of financial openness puts it well below the levels attained by most other emerging market economies, including the other large BRIC economies—Brazil, China, and Russia. This perspective is useful to keep in mind while discussing whether India has

FIGURE 3. De Facto Financial Openness: Emerging Markets

Source: Lane and Milesi-Ferretti (2006) dataset and author's calculations.

exposed itself to considerable risks from rapid integration into international capital markets.

Balance of Payments

In order to dissect the forces behind the accumulation of foreign assets and liabilities, we now turn to an analysis of the underlying flows. India's engagement with the world economy through both trade and financial linkages can best be seen through the prism of the balance of payments. There have been dramatic changes in the evolution of India's balance of payments since the currency crisis of the early 1990s (table 2). During and right after the period of the Asian financial crisis, the current account and capital account roughly balanced each other. In the early part of this decade, the current account balance turned slightly positive, despite a trade deficit. Indeed, this has been a consistent story in India during this decade—that the trade deficit has been offset to a considerable extent by a surplus on invisibles trade and remittances from Indian workers abroad.

Reserve accumulation gradually picked up speed during the early 2000s. There has been a marked shift in the structure of the balance of payments during the last two years (2006–07 and 2007–08). The merchandise trade deficit has risen sharply (to 8 percent of GDP) and the current account deficit is now 1.5 percent of GDP, both larger than at any other time during the past decade. But large capital inflows have more than offset the current account deficit, leading to rapid reserve accumulation.

At the end of financial year 2008, gross international reserves stood at US\$310 billion, representing about 27 percent of nominal GDP. Figure 4 shows that reserve accumulation has hardly been a steady and unrelenting process in India (unlike in China, where it has). There were a number of months, even during this period of unprecedented reserve accumulation, when reserves actually fell. But the overall trend until the summer of 2008 was clearly one of not just a rising level of reserves but also a rising pace of reserve accumulation. The global financial turmoil that swept on to India's shores in September 2008 led to depreciation pressures on the rupee and the RBI has used up about US\$30 billion of its stock of reserves to limit the depreciation of the rupee. It is too early to tell if the era of large capital inflows to India is past or if inflows will recover when the global financial system settles down.

It is instructive to break down the reserve buildup into its components to examine what factors can explain the increase in the rate of accumulation.

TABLE 2. The Balance of Payments (in billions of U.S. dollars)

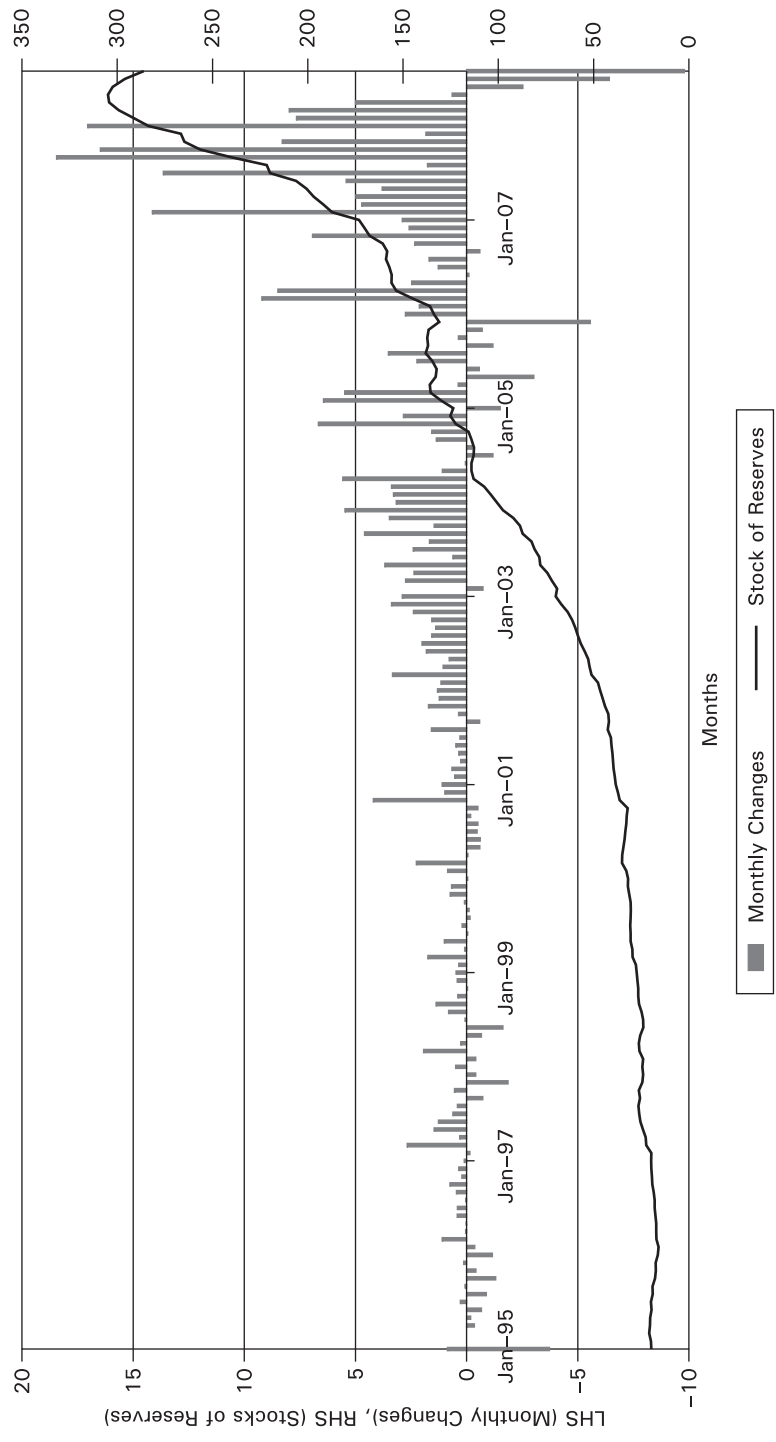
	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09*
Gross international reserves	29.7	33.2	38.7	42.9	54.7	76.1	113.0	141.5	151.6	199.2	309.7	312.1
(in percent of GDP)	7.2	8.0	8.6	9.3	11.4	15.0	18.8	20.3	18.8	21.6	27.2	27.2
Change in international reserves	2.9	3.5	5.5	4.2	11.8	21.4	36.9	28.5	10.1	47.6	110.5	2.4
A. Current account balance	-5.5	-4.0	-4.7	-2.7	3.4	6.3	14.1	-2.5	-9.9	-9.8	-17.4	-10.7
(in percent of GDP)	-1.3	-1.0	-1.0	-0.6	0.7	1.2	2.3	-0.4	-1.2	-1.1	-1.5	-1.5
Merchandise trade balance	-15.5	-13.2	-17.8	-12.5	-11.6	-10.7	-13.7	-33.7	-51.9	-63.2	-90.1	-31.6
(in percent of GDP)	-3.8	-3.2	-4.0	-2.7	-2.4	-2.1	-2.3	-4.8	-6.4	-6.8	-7.9	-7.9
B. Capital account balance	9.8	8.4	10.4	8.8	8.6	10.8	16.7	28.0	25.5	45.8	108.0	13.2
FDI, net	3.5	2.4	2.1	3.3	4.7	3.2	2.4	3.7	3.0	8.5	15.5	10.1
portfolio flows, net	1.8	-0.1	3.0	2.6	2.0	0.9	11.4	9.3	12.5	7.1	29.3	-4.2
C. Errors and omissions, net	0.2	-0.2	0.7	-0.3	-0.2	-0.2	0.6	0.6	-0.5	0.6	1.5	-0.3
D. Valuation change	-1.6	-0.7	-0.9	-1.7	0.0	4.5	5.5	2.4	-5.0	11.0	18.4	0.2
Memorandum items												
Non-FDI capital account balance												
(including errors and omissions)	6.5	5.9	9.0	5.3	3.6	7.4	14.9	24.9	22.0	37.9	94.0	2.8
Nominal GDP	410.0	414.0	450.0	460.0	478.0	508.0	602.0	696.0	806.0	922.7	1140.0	

Source: CEIC, RBI and author's calculations.

Note: * The data for 2008-09 are end June data.

The non-FDI capital account balance is the capital account balance minus net FDI plus net errors and omissions.

FIGURE 4. Foreign Exchange Reserves: Flows and Stocks (in billions of US dollars)



Source: CEIC Data Company Ltd. and author's calculations.

For this exercise, I split the nine-year period since the Asian financial crisis into three periods: 1998–99 to 2000–01, 2001–02 to 2005–06, and 2005–06 to 2007–08. For many Asian and other emerging market economies, the pace and sources of reserve accumulation differ markedly across these three periods (see, for example, Prasad and Wei, 2007, for the case of China). The first three columns of table 3 show the average annual increase in foreign exchange reserves during each of these periods and the breakdown of this increase into the main components. The next two columns show the changes in these averages across periods.

TABLE 3. A Decomposition of the Recent Reserve Buildup

(in billions of U.S. dollars)

	<i>Annual averages</i>			<i>Changes</i>	
	<i>1998–2001</i>	<i>2001–06</i>	<i>2006–08</i>	<i>2001–06</i>	<i>2006–08</i>
	<i>(1)</i>	<i>(2)</i>	<i>(3)</i>	<i>– 1998–2001</i>	<i>– 2001–06</i>
			<i>(2) – (1)</i>	<i>(3) – (2)</i>	
Increase in foreign reserves	4.4	21.7	79.1	17.3	57.3
Current account balance	–3.8	2.3	–13.6	6.1	–15.9
Capital account balance	9.2	17.9	76.9	8.7	59.0
FDI, net	2.6	3.4	12.0	0.8	8.6
Errors and omissions, net	0.1	0.1	1.1	0.0	1.0
Valuation Changes	–1.1	1.5	14.7	2.6	13.2
Non-FDI capital account balance (including errors and omissions)	6.7	14.6	66.0	7.8	51.4

Sources: CEIC, RBI, and author's calculations.

Note: The non-FDI capital account balance is the capital account balance minus net FDI plus net errors and omissions.

The rate of reserve accumulation was higher by an average of US\$17 billion per year in the second period relative to the first. The current account balance shifted from an average deficit of US\$4 billion per year in the first period to a surplus of US\$2 billion per year in the second period, implying that the current account contributed about US\$6 billion to the increase in the rate of reserve accumulation in the second period compared to the first. The change in the non-FDI capital account balance, which mainly constitutes portfolio flows, accounts for most of the remainder.

During 2006–08, the rate of reserve accumulation jumps by a further US\$57 billion per year relative to the preceding period. The forces driving the reserve buildup in this period are very different from the previous period. The current account switches back into a deficit, resulting in a negative contribution of nearly US\$16 billion per year from the current account. The FDI and valuation changes account for US\$9 billion and US\$13 billion

respectively. The latter factor represents an increase in the dollar value of reserve assets held in currencies other than dollars as a consequence of the significant depreciation of the dollar against other major reserve currencies during this period. The big story during the last two years has clearly been the surge in portfolio inflows and various other debt inflows, which together meant that the non-FDI capital account balance contributed nearly US\$51 billion per year to the faster pace of reserve accumulation during this period.

To better understand the implications of these patterns in the balance of payments, it is important to examine in more detail the structure of inflows and external liabilities.

Composition of Gross Flows and External Liabilities

I now provide a disaggregated perspective on India's *de facto* financial integration. As discussed in the review of the academic literature in the section "Paradoxical Results, but Composition of Liabilities Matters", the costs and benefits of financial openness are crucially dependent on the nature of financial integration. In this section, I review the composition of India's capital inflows and outflows, the structure of its external liabilities, and the implications for the benefit–cost tradeoff.

Gross Flows

Table 4 indicates that gross inflows have risen sharply since the early 2000s, from an average level of about 2 percent of GDP over the previous decade to nearly 9 percent in 2007–08. The shares of the components of gross inflows fluctuate markedly from year to year and it is difficult to detect any clear trends over the full sample of data. Focusing on the last four years, it is clear that FDI and portfolio inflows have together become a major constituent of overall inflows. The trend in outflows, which still remain at very low levels (2 percent of GDP in 2007–08), is much clearer with FDI accounting for the lion's share of outflows in recent years and portfolio flows barely registering on the scale.

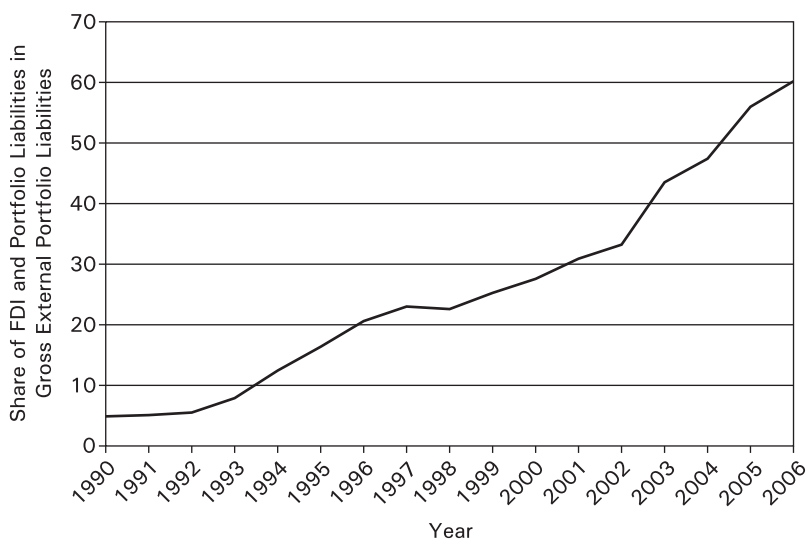
Composition of External Liabilities

As discussed earlier, stocks of external liabilities are more reliable measures of the benefits that emerging markets can potentially attain from financial integration, and also the potential risks. For this part of the analysis, we turn again to the dataset of Lane and Milesi-Ferretti (2007). Figure 5 shows that

TABLE 4. Composition of Gross Inflows and Outflows

	Gross inflows			Components			Gross Outflows			Components		
	(in USD billion)	(percent of GDP)	FDI	Portfolio (as percent of gross inflows)	Loans	Other	(in USD billion)	(percent of GDP)	FDI (as percent of gross inflows)	Portfolio (as percent of gross inflows)	Loans	Other
1995-96	7.8	2.1	27.6	34.3	28.4	9.6	1995-96	3.5	0.9	5.4	0.2	94.4
1996-97	13.6	3.5	20.9	24.4	35.3	19.4	1996-97	3.1	0.8	6.1	0.0	93.9
1997-98	14.0	3.3	25.4	13.1	34.3	27.2	1997-98	2.5	0.6	1.5	0.4	98.0
1998-99	10.8	2.5	23.0	-0.6	41.0	36.7	1998-99	2.9	0.7	3.4	0.5	96.0
1999-00	10.8	2.4	20.0	28.0	14.8	37.2	1999-00	2.9	0.6	2.5	-0.3	97.8
2000-01	14.9	3.2	27.0	18.5	35.3	19.2	2000-01	3.5	0.8	21.6	4.8	72.9
2001-02	9.2	1.9	66.7	22.0	-13.7	25.0	2001-02	3.1	0.6	45.4	2.3	49.6
2002-03	4.0	0.8	125.7	24.4	-96.1	46.0	2002-03	3.1	0.6	57.9	1.1	40.2
2003-04	16.3	2.8	26.4	69.5	-26.7	30.8	2003-04	4.3	0.7	44.9	0.0	52.7
2004-05	35.4	5.1	16.9	26.3	30.9	25.9	2004-05	6.8	1.0	33.5	0.4	61.2
2005-06	35.2	4.3	25.3	35.4	22.4	16.9	2005-06	10.9	1.3	53.9	0.0	43.2
2006-07	61.3	6.7	35.9	11.4	40.1	12.6	2006-07	17.5	1.9	77.0	-0.3	21.5
2007-08	98.1	8.6	18.3	33.5	28.9	19.3	2007-08	26.0	2.3	64.6	-0.6	35.9

Source: CEIC, RBI, and author's calculations.

FIGURE 5. Share of FDI and Portfolio Liabilities in Gross External Liabilities

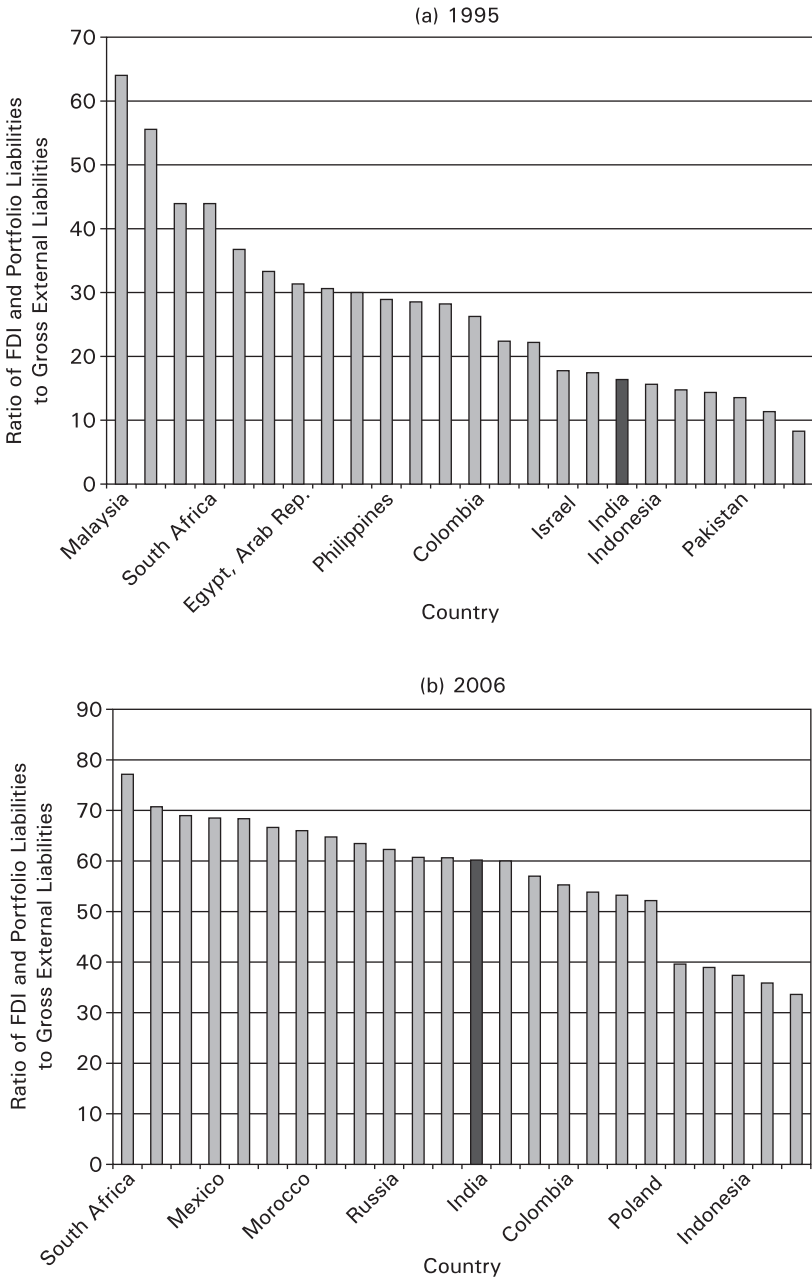
Source: Lane and Milesi-Ferretti (2006) dataset and author's calculations.

the ratio of FDI and portfolio liabilities in gross external liabilities risen steadily, from a level below 10 percent in the early 1990s to 60 percent at present. Based on the discussion in the section “Paradoxical Results but Composition of Liabilities Matters” about the relative merits of different forms of capital, this is clearly a positive development.

Figures 6a and 6b, which provide a cross-country comparison of this ratio for emerging markets, shows that India is now in the middle of the pack and not too far off the level of the leading country. Indeed, India has moved up quite significantly from its position near the bottom of this cross-country distribution in 1995. It is also interesting to note that the dispersion of this ratio across emerging markets has decreased considerably over the past decade. This is of course consistent with other evidence that the composition of private capital flows to emerging markets has shifted markedly toward FDI and portfolio flows in recent years.⁸ Thus in India, as in most other emerging markets, the structure of external liabilities has become quite favorable in terms of attaining the risk sharing and TFP growth benefits of financial openness.

8. Kose et al. (2006) report that in 2000–04, debt accounted for about 52 percent of gross external liabilities of emerging markets, while FDI accounted for 37 percent. Portfolio equity liabilities accounted for most of the remainder. Back in 1980–84, the corresponding shares for debt and FDI were 85 percent and 14 percent respectively.

FIGURE 6. Ratio of FDI and Portfolio Liabilities to Gross External Liabilities



Source: Lane and Milesi-Ferretti (2006) dataset and author's calculations.

Structure of External Debt

One component of foreign liabilities that is of particular interest is the stock of external debt. The size of the stock of short-term external debt denominated in foreign currencies has been identified as an important factor triggering many emerging market financial crises of the last two decades. Moreover, short-term debt flows tend to be highly procyclical and so do the financing terms for these flows (Kaminsky et al., 2004). Consequently, countries that rely to a great extent on short-term foreign currency debt face a double whammy when they are hit with negative shocks and when external financing is in principle even more important to smooth domestic consumption.

India has taken a cautious approach to allowing the accumulation of foreign-currency denominated external debt, resulting in a low level of vulnerability on this front. The ratio of external debt to GDP has fallen from levels of around 38 percent in the early 1990s to under 20 percent in the last five years (table 5). The share of short-term debt in total external debt has risen to 20 percent although this number should be interpreted with some caution as there appears to be a discontinuity in the split between short- and long-term debt in 2005. Between 2005 and 2008, the share of short-term debt in total debt has risen by nearly 7 percentage points, so the trend is clear at any rate.

With the opening up to capital inflows, the share of deposits by Indians who live abroad and other foreign currency deposits in total debt rose from 12 percent in the early 1990s to 28 percent in 2004, before declining to 20 percent by 2008. External commercial borrowings by corporates have risen to about 28 percent of total debt, from about 12 percent in the early 1990s.

Consider adding together three elements of the debt structure that could represent potential flight capital—foreign currency deposits, external commercial borrowings, and short-term debt. If one adds all of these together, for 2007 the total amounts to about 13 percent of GDP. Some authors such as Williamson (2006) have expressed concerns that the liberalization of debt inflows may bode ill for India. The levels of debt are not high enough to warrant significant concern although of course one could make the legitimate argument that this relatively benign outcome is *because* the government has limited external commercial borrowings and short-term debt. The problem is that it is now relatively straightforward to evade controls on this type of flow by bringing in capital as portfolio equity and swapping it for other instruments (including over-the-counter debt instruments).

In any event, the surge in external commercial borrowings does bear further consideration. Given the practically nonexistent domestic corporate debt

TABLE 5. External Debt Stocks: Levels and Composition

	Total			By maturity			Composition of long-term debt				
	(in USD billion)	(percent of GDP)	Long-term	Short-term	Multilateral	Bilateral (as percent of total debt)	IMF	Export credit	Commercial borrowing	Non-residents and foreign currency deposits	Rupee debt
1990	75.9	26.7	90.1	9.9	25.3	17.9	2.0	6.1	12.3	12.0	14.5
1991	83.8	28.6	89.8	10.2	24.9	16.9	3.1	5.1	12.2	12.2	15.3
1992	85.3	38.6	91.7	8.3	27.1	18.1	4.0	4.7	13.7	11.8	12.2
1993	90.0	37.3	93.0	7.0	27.8	17.9	5.3	4.8	12.9	12.4	11.8
1994	92.7	33.5	96.1	3.9	28.3	18.8	5.4	5.6	13.3	13.7	10.9
1995	99.0	30.7	95.7	4.3	28.8	20.5	4.3	6.7	13.1	12.5	9.7
1996	93.7	26.9	94.6	5.4	30.5	20.5	2.5	5.7	14.8	11.7	8.8
1997	93.5	24.4	92.8	7.2	31.3	18.7	1.4	6.3	15.3	11.8	8.0
1998	93.5	24.2	94.6	5.4	31.6	18.1	0.7	7.0	18.2	12.7	6.3
1999	96.9	23.5	95.6	4.4	31.5	18.1	0.3	7.0	21.7	12.2	4.9
2000	98.3	22.0	96.0	4.0	32.0	18.5	0.0	6.9	20.3	13.8	4.5
2001	101.3	22.5	96.4	3.6	30.7	15.8	0.0	5.8	24.1	16.4	3.7
2002	98.8	21.2	97.2	2.8	32.3	15.5	0.0	5.4	23.6	17.4	3.1
2003	104.9	20.3	95.5	4.5	28.6	16.0	0.0	4.8	21.4	22.1	2.7
2004	111.6	17.8	96.0	4.0	26.2	15.5	0.0	4.2	19.7	28.0	2.4
2005	133.0	18.5	86.7	13.3	23.9	12.8	0.0	3.8	19.9	24.6	1.7
2006	138.1	17.2	85.9	14.1	23.6	11.4	0.0	3.9	19.1	26.3	1.5
2007	169.7	17.8	84.5	15.5	20.8	9.5	0.0	4.2	24.6	24.3	1.1
2008	221.2	18.8	80.0	20.0	17.8	8.9	0.0	4.6	28.0	19.7	0.9

Source: CEIC Data Company Ltd., Ministry of Finance, Government of India, and author's calculations.

market, firms interested in issuing debt may have been pushed to issue debt abroad. Moreover, the RBI's attempts to resist exchange rate appreciation during 2006–07 may in fact have created incentives for firms to seek capital abroad using debt denominated in foreign currencies. Firms may have been using this financing instrument to effectively place bets on an eventual currency appreciation. Thus rather than viewing foreign debt as the problem to be dealt with, it would be more appropriate to think about the aspects of the financial system and macro policies that may be creating incentives for firms to obtain financing through foreign currency debt. I will return to this theme in the concluding section.

Does India Have Enough Reserves?

In determining a country's vulnerability to external shocks, the structure of external assets and liabilities is an important indicator. I now examine the evolution of India's official international investment position (IIP) and its implications for India's financial openness.⁹ The IIP effectively represents a country's balance sheet vis a vis the rest of the world. Table 6 shows that at the end of financial year 2007–08, India had a net negative IIP position of US\$53 billion. This represents a significant improvement from the level of minus US\$81 billion in 1996–97, just before the Asian financial crisis. The stock of external assets has grown six-fold from US\$62 billion in 2000–01 to US\$381 billion in 2007–08. A substantial portion of this stock is accounted for by reserves. At the end of financial year 2007–08, the total stock of reserve assets was US\$310 billion, of which foreign exchange reserves amounted to US\$299 billion.

From an insurance perspective, the adequacy of the stock of foreign exchange reserves is typically measured relative to a country's imports or the level of short-term external debt. Table 7 shows that by both these measures, India has more than adequate reserves. Even as of 2007, reserves were sufficient to cover more than a year's worth of imports, well above the conventional threshold of six months of imports. Moreover, reserves even exceed the level of total external debt; recall that short-term debt is only 20 percent of

9. Due to some differences in how valuation effects are computed for various components of external assets and liabilities, there are some discrepancies between the values of these stocks in the official IIP data and the Lane and Milesi-Ferretti (2006) dataset. These discrepancies have grown in the last few years as the stocks have increased, along with the magnitude of fluctuations in the value of the US dollar. Hence, I use the official IIP data here but have used the Lane and Milesi-Ferretti in other sections to facilitate international comparisons.

TABLE 6. India's International Investment Position

(in billions of U.S. dollars)

	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
Net Position	-81	-81	-79	-77	-76	-69	-60	-47	-54	-60	-62	-53
A. Assets	38	42	47	55	62	74	96	136	166	184	246	381
1. FDI	1	1	2	2	3	4	6	8	10	16	29	46
2. Portfolio	0	0	0	0	1	1	1	0	0	1	1	1
Equity	0	0	0	0	0	0	0	0	0	1	1	1
Debt	0	0	0	0	0	0	0	0	0	0	0	0
3. Other investments	10	11	12	14	16	14	13	15	14	15	16	25
4. Reserve assets	27	30	33	39	43	55	76	113	142	152	199	310
Foreign exchange reserves	22	26	30	35	40	51	72	107	136	145	192	299
B. Liabilities	119	122	126	132	139	143	156	183	220	244	308	434
1. FDI	11	14	15	18	20	25	31	38	44	52	76	116
2. Portfolio	19	20	23	25	31	32	32	44	56	64	79	119
Equity	14	14	13	16	17	19	20	34	43	55	63	98
Debt	5	6	10	9	14	13	12	10	13	10	16	21
3. Other investments	89	88	87	89	87	86	92	101	119	128	152	199

Source: Reserve Bank of India and CEIC.

TABLE 7. Reserve Adequacy

	<i>Non-FDI external liabilities</i>	<i>External debt</i>	<i>Months of imports</i>	<i>M3</i>
1992		0.1	3.3	0.1
1993		0.2	6.6	0.1
1994		0.2	7.6	0.1
1995		0.2	4.8	0.1
1996	0.2	0.2	6.0	0.1
1997	0.2	0.3	6.7	0.1
1998	0.3	0.3	6.7	0.1
1999	0.3	0.4	6.9	0.1
2000	0.3	0.4	7.4	0.1
2001	0.4	0.5	9.6	0.2
2002	0.6	0.7	10.8	0.2
2003	0.7	0.9	12.6	0.2
2004	0.8	1.0	11.4	0.3
2005	0.8	1.1	9.5	0.2
2006	0.9	1.1	9.6	0.3
2007	0.9	1.4	12.5	0.3

Source: CEIC Data Company Ltd., RBI, and author's calculations.

external debt (table 5), so reserves are many multiples of the level of short-term external debt.

From the perspective of capital account liberalization, an even more stringent criterion than the coverage of external debt is whether reserves cover a major portion of the stock of all non-FDI foreign liabilities, on the assumption that all liabilities other than FDI are relatively liquid and could fly out of a country at short notice. The IIP numbers show that at the end of 2007–08, India's foreign exchange reserves (US\$299 billion) were nearly adequate to cover its entire stock of non-FDI liabilities, which amounted to US\$318 billion.

A different criterion suggested by some authors is whether reserves are sufficient to cover a significant portion of a broad monetary aggregate such as M2.¹⁰ Demand deposits and currency can in principle flee a country at short notice; protecting the economy from the financial instability that could arise from such an event could be an important benchmark for policymakers to gauge a "safe" level of reserves. By this criterion, India, like many other

10. Obstfeld et al. (2008) argue that concerns about domestic financial stability could be a key motive for the massive amount of reserve accumulation by emerging market economies in recent years. Given their current levels of imports and external debt, the levels of reserves in many of these countries are well above those that could be justified on precautionary grounds based on these standard criteria. These authors find that a model that includes the ratio of M2 to GDP does a much better job of fitting cross-country variations in reserve levels.

emerging market economies (including China) does not have an excessively high level of reserves. The last column of table 7 shows that India's reserves cover about 30 percent of an even broader aggregate M3. This is a large share but obviously not enough to offset a complete financial collapse and the accompanying loss of confidence in the domestic banking system. Given the relative prudence of the RBI and the large banks themselves, this seems a highly unlikely scenario.¹¹

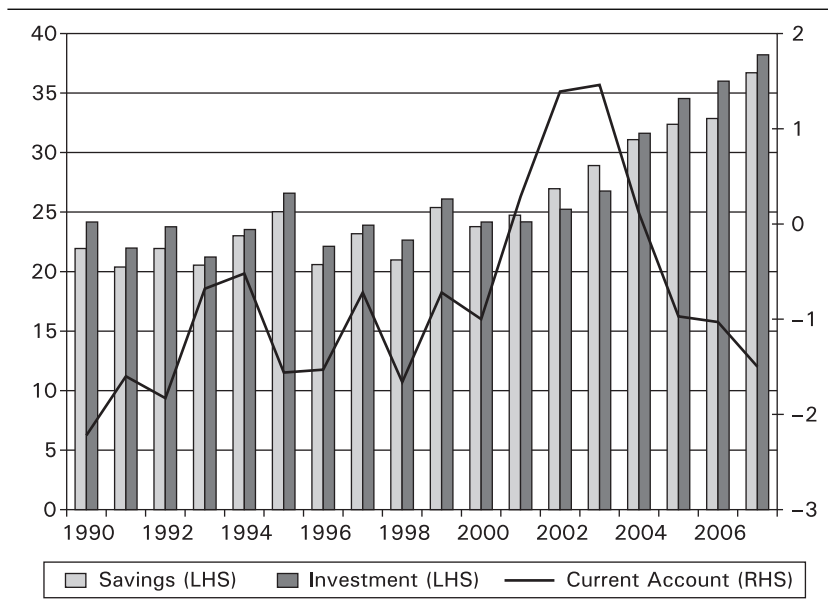
The basic conclusion of this section is that India has accumulated a level of foreign exchange reserves that exceeds most standard norms of reserve adequacy from an insurance perspective. Indeed, the fact that India has accumulated an additional US\$110 billion of reserves during 2007–08 makes this picture look even more benign than indicated by the ratios in table 7. The traditional risks faced by emerging markets with open capital accounts—sudden stops or reversals of capital flows—are therefore not a major concern. Nevertheless, there is clearly an important difference relative to China, which has been accumulating reserves at a hectic pace through current account as well as capital account surpluses.

While China is running a current account surplus in excess of 12 percent of GDP, India registered a current account deficit of 1.5 percent in 2007–08. Is India vulnerable on this dimension? Since foreign exchange reserves amount to about a quarter of GDP, a sudden stop of capital inflows by itself is not going to create major problems for financing the current account deficit. Moreover, as recent developments have indicated, the RBI is willing to let the rupee depreciate quite significantly to prevent the current account deficit from rising. Nevertheless, current account deficits that reflect consumption booms have often ended disastrously—is this a risk for India? On this score, there is not a strong case for concern. Figure 7 shows that both the national savings and the investment rates have been rising since the early 2000s although the investment rate has risen a little faster, accounting for the current account deficit. Thus, India seems to fit the textbook example of a developing country borrowing from abroad to finance investment as its capital to labor ratio is low and its productivity growth is high relative to its major trading partners.¹²

One aspect in common with China is the risk of a banking crisis—a significant tremor in the banking system may trigger a surge of outflow of deposits

11. Indian banks, both private and public, are well capitalized and the ratio of nonperforming loans to total deposits in the banking system is estimated to be less than 2 percent.

12. Bosworth and Collins (2008) conducted a growth accounting exercise for India and China. They concluded that India has in recent years been experiencing higher productivity growth than most industrial countries (but less than China).

FIGURE 7. The Savings–Investment Balance

Source: World Development Indicators (World Bank).

from the banking system and into foreign currency assets (Prasad, 2008). Accumulating enough reserves to deal with this potential source of financial instability may seem prudent. But the costs of accumulating such a large stock of reserves—especially in terms of the other distortions in the system needed to maintain a rapid pace of accumulation—implies that this insurance may have costly welfare consequences. On the other hand, a different—and less sanguine—perspective comes from the rapid loss of nearly US\$30 billion worth of reserves in recent weeks as the global financial turmoil led to a flight to quality (and out of emerging markets, including India) and the RBI sought to slow down a sharp depreciation of the rupee. I will return to this issue in the concluding section.

India's Position in the International Financial System

With its strong growth prospects, India will remain an attractive destination for capital inflows once global financial markets settle down. And its emergence as an economic power will mean that the economy is likely to continue to export private capital. But what forms these inflows and outflows take will

of course determine the effects on macroeconomic outcomes. While such prognostications are difficult, a first step is to evaluate how much of various types of flows to emerging markets can be accounted for by India. For this exercise, we rely on IMF data on total gross inflows into and outflows from all emerging markets and other developing countries. This includes not just flows between these countries and advanced industrial economies but also flows amongst these countries themselves.

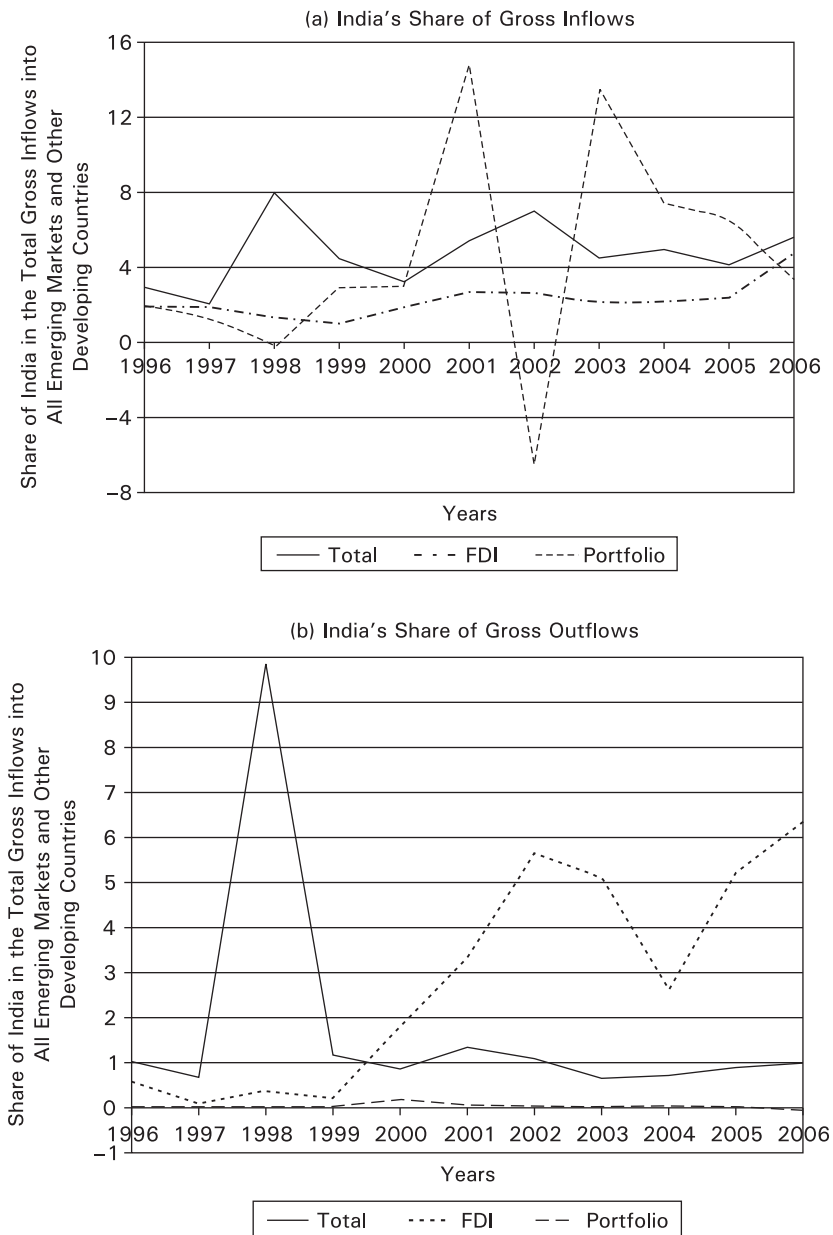
Figures 8a and 8b show India's share in total gross flows to emerging markets and other developing countries. This share was just 2 percent in 1997 but shot up to 8 percent in 1998, the second year of the Asian financial crisis, mainly because the overall quantum of flows to emerging markets shrank substantially and economies like China and India, which were not devastated by the crisis, got more of whatever flows there were. The share has averaged about 5 percent during the 2000s and has been quite stable. India's share of FDI has been quite low over the last decade and inched up to just over 4 percent in 2006. Likewise, India's share of portfolio flows to non-industrial countries hit 12 percent in a couple of years (2001 and 2003) but has otherwise been rather low, amounting to only 4 percent in 2006 (based on the strong portfolio inflows in 2007–08, it has no doubt gone up by at least a couple of percentage points).

In parallel with the inflows it has been receiving, India has of course been investing abroad. Encouraged by the RBI's easing of restrictions on outward FDI, Indian corporates have ramped up these flows, which now account for more than 6 percent of total gross FDI flows emanating from all non-industrial countries (including flows going to other emerging markets). The share of portfolio flows, by contrast, has remained at minuscule levels.

Its low share of total inflows into emerging markets suggests that, despite its growth story, India has a considerable way to go in terms of even obtaining a significant share of total flows to non-industrial countries. It also suggests that unless there is a fundamental shift in the structures of world financial markets, there could be a lot more capital coming into India if growth prospects remain strong and other international investors "discover" it.¹³ Factors that could lure more capital into India include its relatively high productivity growth, well-developed equity markets, and the profit

13. Patnaik and Shah (2008) note that India's actual weight in the global equity portfolio is only about one-sixth the predicted weight that India should have according to a standard International Capital Asset Pricing Model (ICAPM). This is in fact an improvement relative to 2001, when the actual weight was only about one-tenth the predicted weight (and, of course, India's ICAPM weight has risen substantially—almost four-fold—from 2001 to 2007).

FIGURE 8. India's Share in Gross Inflows to and Outflows from Emerging Markets and Other Developing Countries



Source: CEIC, Global Financial Stability Report 2008, and author's calculations.

opportunities from rising income levels and a rapidly expanding domestic market.

At the same time, India's growth is also likely to unleash resources that will result in more capital outflows. As household income levels rise, the demand for international portfolio diversification will increase. Indian institutional investors will also be looking for a wider range of investment opportunities, both domestically and abroad, as their asset pools increase. And Indian companies will almost certainly continue to expand their reach abroad.

The net implication is that there are powerful forces that will impel a substantially higher degree of integration into international financial markets, with capital controls becoming increasingly irrelevant even if they remain on the books. Given India's financial structure and changes in the structure of international financial flows, much of this integration is likely to take the form of inflows and outflows of FDI and portfolio equity, which would of course be a favorable outcome. But the reality is that it will become increasingly difficult to bottle up specific types of flows if the economic incentives favoring them are powerful enough. So the best that macroeconomic policies can do is to foster macroeconomic and financial stability, which could serve to promote the right kinds of flows in both directions.

Implications for Policies toward Capital Account Liberalization

India has taken what seems to be a convoluted approach toward capital account convertibility. On the one hand, the capital account has become quite open and restrictions on both inflows and outflows have been eased significantly over time.¹⁴ Nevertheless, there seems to be a residual element of government control that is maintained on many types of flows—sometimes as modest as registration requirements on foreign investors but also some as onerous as virtually keeping foreign investors out of the government debt market—which seems to go against the spirit of unrestricted financial flows. These elements are part of a strategy of cautious and calibrated capital account liberalization that has served India well in at least one dimension—reducing its vulnerability to crises.

In terms of overall *de facto* financial integration, India has come a long way and has experienced significant volumes of inflows and outflows in

14. For a chronology, see Bery and Singh (2006). Patnaik and Shah (2008) discuss a few recent steps toward more openness, some remaining restrictions, and their consequences. Also see Reddy (2005), Mohan (2007), Shah (2008), and *Report on Making Mumbai* (2007).

recent years. Relative to the size of its economy, however, these flows are rather modest, putting India at the low end of the distribution of *de facto* financial integration measures in an international comparison across emerging market economies.

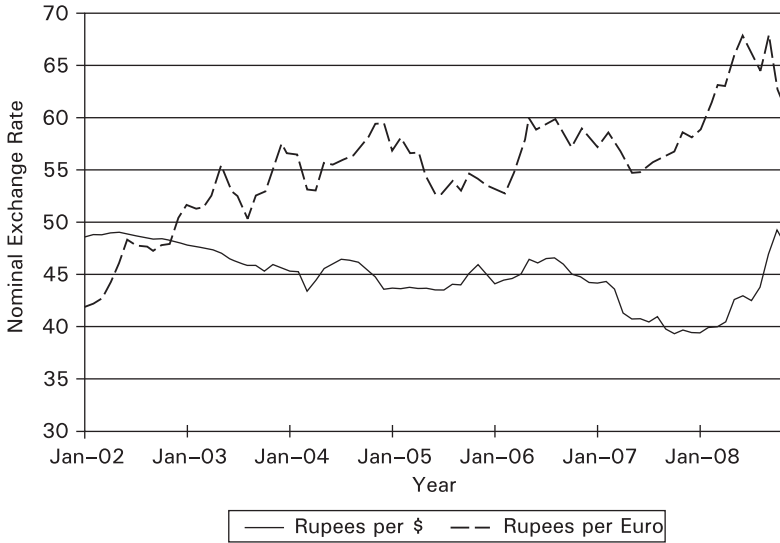
The RBI's calibrated approach to capital account opening has resulted in a preponderance of FDI and portfolio liabilities in India's stock of gross external liabilities. All elements of the literature point to this as being a favorable outcome in terms of improving the benefit–risk tradeoff of financial openness. But at the same time the limited degree of openness has probably limited the indirect benefits that seem to accrue from financial integration.

Why not move more rapidly toward fuller capital account convertibility? The recent global financial turmoil suggests that a high degree of caution may be warranted in further opening of the capital account. The question is where to strike the balance—this is a judgment call as the benefits of caution need to be weighed against the possibility that excessive caution in further capital account opening may be holding back financial sector reforms and reducing the independence and effectiveness of monetary policy.

One of the main concerns about capital account liberalization is that it makes exchange rate management harder. Some authors have argued that opening of India's capital account should be resisted as that would make it harder to maintain an undervalued exchange rate and thereby promote export-led growth (for instance, Bhalla, 2007; Subramanian, 2007). This is not a realistic proposition; worse still, it has detracted from many of the potential indirect benefits of financial integration. Although India does not have a formal exchange rate target, the Indian rupee has been managed to varying degrees at different times. Even though the nominal exchange rate relative to the US dollar has fluctuated over a wide range in the last decade (figure 9), the effective exchange rate—measured in either nominal or real terms—has been managed within a much narrower range (figure 10). The problem is that this has constrained the independence of monetary policy, which now involves a mix between inflation and exchange rate objectives. The RBI does in fact seem to have an implicit medium-term inflation objective (or at least a tolerance level) but also focuses on the exchange rate when needed. As recent events have indicated, this has made the central bank more susceptible to political pressures and might have made it harder for the RBI to manage inflationary pressures.¹⁵

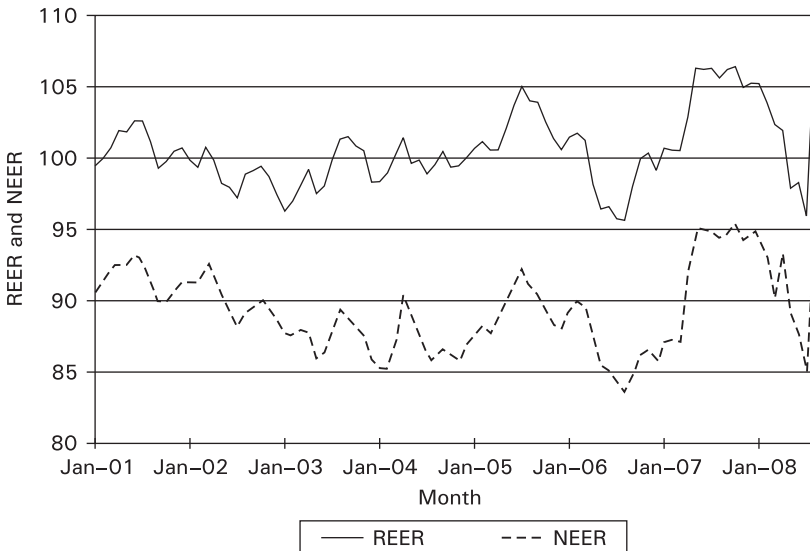
15. Some authors such as Panagariya (2008, see Chapter 10) argue forcefully that the RBI has in fact been very successful with its “pragmatic” approach to monetary and exchange rate policies, delivering a high rate of GDP growth as well as low inflation.

FIGURE 9. Nominal Exchange Rate



Source: CEIC Data Company Ltd.

FIGURE 10. Real and Nominal Effective Exchange Rates



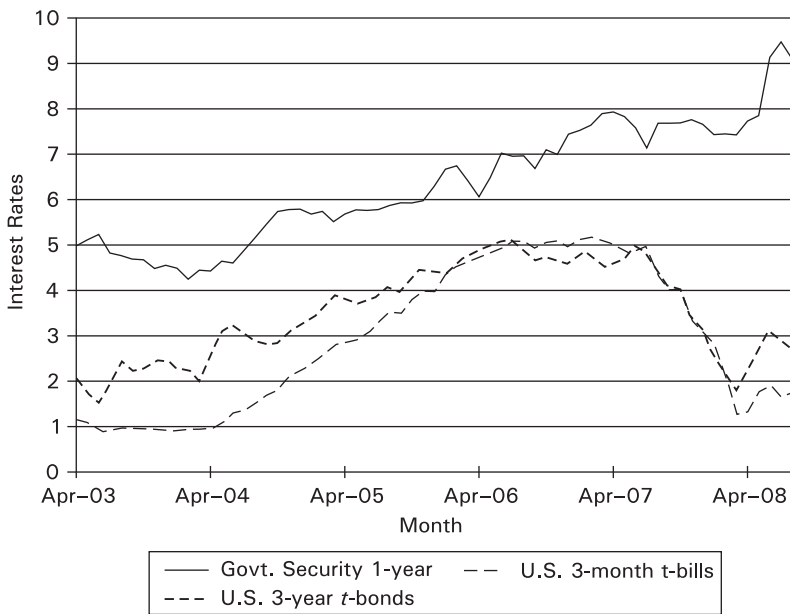
Source: CEIC Data Company Ltd.

Note: REER: Real Effective Exchange Rate; NEER: Nominal Effective Exchange Rate.

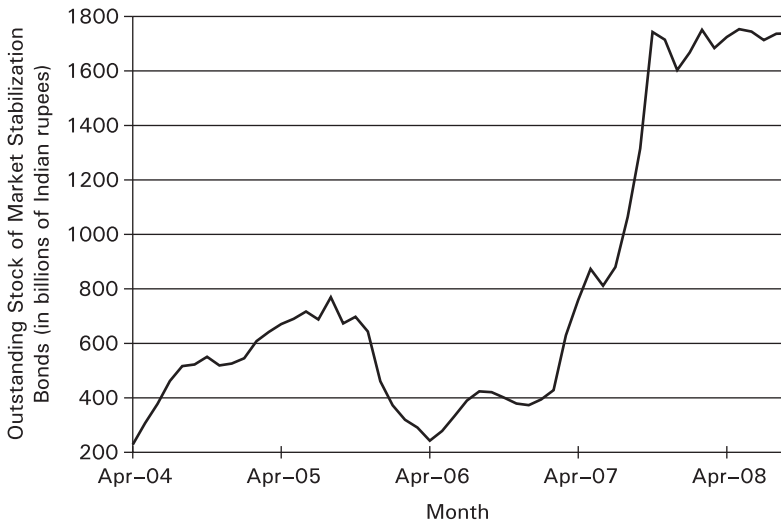
Resisting exchange rate appreciation has resulted in large costs of sterilizing inflows that are recycled into foreign exchange reserves, which are usually held in low-yield industrial country government bonds. Figure 11, which shows the interest rate differential between Indian and US government securities, drives home this point. The stock of sterilization bonds (Market Stabilization Bonds) also rose sharply during 2006 and 2007 (figure 12), implying that the quasi-fiscal costs of the RBI's sterilization operations have mounted rapidly. Clearly, tight exchange rate management is not a viable strategy, especially as the capital account is becoming more open in *de facto* terms over time. This is also evident in developments since the summer of 2008—the RBI has been unable to hold back pressures for the exchange rate to depreciate significantly despite large-scale intervention in the foreign exchange market.

The Rajan Committee report (2008) makes the point that monetary policy would be far more effective if it was focused on the objective of a low and stable inflation rate. Indeed, the evidence suggests that making an inflation objective the key priority of monetary policy would be the best contribution that monetary policy can make to stabilizing domestic business cycles,

FIGURE 11. Interest Rates in India Relative to the US



Source: CEIC, US Treasury, and author's calculations.

FIGURE 12. Outstanding Stock of Market Stabilization Bonds (in billions of Indian rupees)

Source: CEIC Data Company Ltd.

maintaining financial stability, and even reducing exchange rate volatility (Rose, 2007). In short, maintaining capital controls as a device to try and manage the exchange rate better is unlikely to work and also weakens monetary policy in insidious ways, especially in terms of managing inflation expectations.

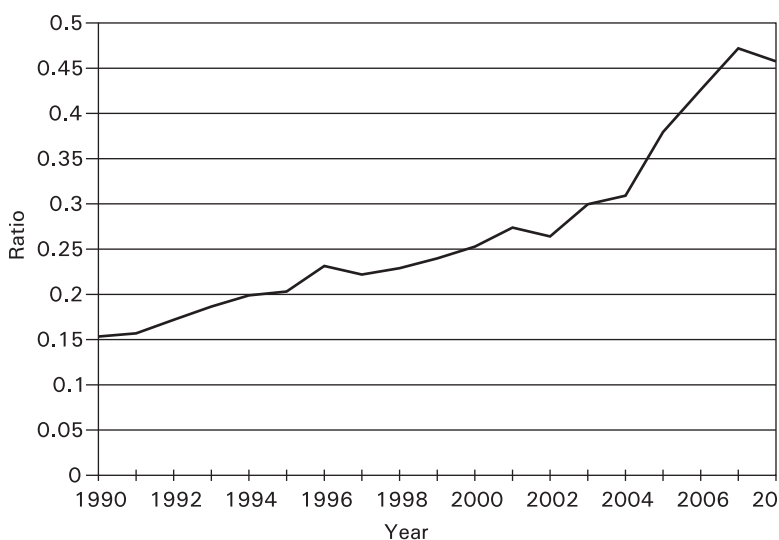
Williamson (2006) argues that India may have liberalized its capital account too quickly and that it should slow down the process noting, in particular, that liberalizing debt flows could be risky and would have few benefits. This proposition has some validity to it but comes up against the reality that it is now very difficult to bottle up specific types of flows. As discussed earlier, the increase in external commercial borrowings in foreign currencies by Indian corporations during 2007 and the first half of 2008 may have been driven in large part by the attempts to resist currency appreciation as well as the absence of other markets to hedge currency risk. Maintaining capital controls simply perpetuates some of these distortions without any actual benefit in terms of reducing inflows. Flows of different forms are ultimately quite fungible and it is increasingly difficult, given the rising sophistication of investors and financial markets, to bottle up specific types of flows. Indeed, rising *de facto* openness in tandem with *de jure* controls may lead to the worst combination of outcomes—the complications for

domestic macroeconomic management from volatile capital flows and far fewer indirect benefits from financial openness.

One key issue is whether India falls below the threshold conditions that seem to make a big difference to the benefit–risk tradeoff of financial openness. Kose et al. (2008) report that while it is difficult to precisely identify the critical levels of the threshold conditions that influence the outcomes of financial openness, there are a few general propositions that do come out of the analysis for particular countries such as India. Given India’s level of financial and institutional development, the accumulation of FDI and portfolio equity liabilities is relatively “safe” as the levels of these two thresholds for such liabilities are rather low. As for debt accumulation, India is moving toward the threshold in terms of financial development but is not there yet.

Another important threshold condition is related to trade integration. Many authors have found that greater openness to trade not only reduces the risks of financial crises but also makes it easier for a country to recover quickly if it does get hit by a crisis (see, for example, Frankel and Cavallo, 2004, and references therein). On this dimension, it is encouraging that there has been a rapid increase in India’s external trade, with the standard trade openness measure (ratio of the sum of exports and imports to GDP) nearly doubling from its level of 25 percent in 2000 (figure 13).

FIGURE 13. Trade Openness Ratio



Source: CEIC and author’s calculations.

Note: This figure shows the sum of imports and exports of goods and services as a ratio to GDP.

Thus, in terms of the collateral benefits thresholds framework, India is a good example of a country where the benefit–risk tradeoff of further capital account is finely balanced. It turns out that there is another important threshold condition, which is the level of financial integration itself. Countries that are more integrated into international financial markets seem to achieve better risk sharing outcomes and also seem to suffer few ill effects of even a stock of external liabilities that is tilted toward more debt.

Given the cushion provided by India’s high level of reserves, there is now an opportunity to push forward more aggressively with certain aspects of capital account liberalization in order to gain more of the indirect benefits of financial integration. For instance, a specific recommendation of the Rajan Committee (2008) is that allowing foreign investors to invest in government bonds could improve the liquidity and depth of this market. This would have numerous ancillary benefits. A deep and well-functioning government bond market is a prerequisite for serving as a benchmark for pricing corporate bonds, which could allow that market to develop. By providing an additional source of debt financing, it would create some room for the government to reduce the financing burden it currently imposes on banks through the statutory liquidity ratio—the requirement that banks hold a certain portion of their deposits in government bonds. And it might even have the beneficial effect of imposing some discipline on fiscal policy since foreign investors could pull out and raise the cost of debt financing if the government budget deficit were to start rising again.

An opportunistic approach to liberalization of outflows during a period of surging inflows is also worth considering as it would serve multiple objectives. If undertaken in a controlled manner along the lines suggested by Prasad and Rajan (2008), it would generate a variety of collateral benefits—sterilization of inflows, securities market development, international portfolio diversification for households—without the risks of a full and irrevocable opening of the taps for outflows. More recently, the RBI has taken an opportunistic approach to liberalizing inflows by raising ceilings on external commercial borrowings in order to compensate for capital outflows. These are steps in the right direction. One potential problem is that such measures—when taken in isolation and perceived as subject to reversal if they are not seen as part of a broader and well-articulated capital account liberalization agenda—are not likely to be very productive.

Does all this mean that financial integration should be a key policy priority and that the capital account should be opened at one fell swoop? Hardly. As Panagariya (2008) notes, liberalizing all types of short-term flows in a precipitous manner could heighten the risk of financial crisis,

which in turn would put paid to a whole host of other essential reforms. But my perspective on this is slightly different—that holding exchange rate policy and financial reforms hostage to the notion that the capital account can be kept closed or restricted for a prolonged period (even 3–5 years) may ultimately prove to be a costly proposition. While full capital account convertibility may not be an immediate priority, it is important not to lose sight of the longer-term objective while dealing with short-term pressures caused by surges of inflows or outflows. Indeed, in terms of facilitating adjustment and deriving more indirect benefits, there is a case to be made for taking advantage of the various favorable circumstances discussed in this paper and laying down a well-articulated roadmap toward rapid capital account liberalization in the near term (next 2–3 years) rather than over the indefinite future.¹⁶

16. The reports of the Mistry Committee (2007) and Rajan Committee (2008) lay out a fairly aggressive timetable, noting the large benefits that could be gained from financial openness, including how it could foster more effective monetary policy and boost financial sector reforms. The Tarapore Committee (2006) recommends a much slower pace of liberalization. Rajan and Zingales (2003) note that capital account liberalization can also be useful as a framework for building consensus around reforms and for thwarting coalitions that try to block reforms.

Comments and Discussion

John Williamson: I find this paper somewhat schizophrenic. The author is in favor of pushing forward more aggressively with capital account liberalization, at least certain aspects of it, as he says rather emphatically in the final paragraph. But he also commends the cautious and calibrated path to capital account liberalization that has been adopted by the Indian authorities. So whatever a discussant may say, there are certain to be some quotations that can be cited back at one.

Prasad's paper is in part a competent summary of recent developments in India's external sector. I found nothing to quarrel with here, so I shall restrict my comments to the other big theme of his paper—the discussion of capital account convertibility.

Prasad accepts, as does almost everyone nowadays, that foreign direct investment (FDI) is a good thing. He is also positive about portfolio equity investment, as am I. The evidence is overwhelming that this brings benefits in terms of bigger investment and hence faster growth. Its flight is also self-limiting in that equity sales depress prices, which provides a natural disincentive to push capital flight to a damaging extreme. But if FDI and portfolio equity inflows both contribute positively to growth and overall capital inflows have the zero impact on growth (at best) indicated by the empirical evidence cited by Prasad, then it follows that loans—the third component of the capital account—have a negative impact. This seems to me quite plausible: it is loans that can be liquidated and repatriated at fixed nominal prices. If they are denominated in foreign currency, as is usual in the case of loans, then their repatriation becomes even more burdensome when the exchange rate depreciates. This is the way that crises are manufactured. This seems to me the central fact about capital flows that Prasad's analysis implies but that he fails to emphasize.

One remark: The “new paradigm” argues that capital inflows benefit growth through their catalytic effects rather than their direct effects in providing additional financing. Perhaps they do, but if so, that should be picked up by the tests that have regressed growth on measures of whether the capital account is liberalized, rather than whether the country has had a big capital inflow. Those tests have basically been negative too.

Note that Prasad attaches considerable importance to threshold conditions. He argues that these are lower for FDI and portfolio equity than for loans, and hence one should be pleased with the present composition of India's foreign debts. Yes, I am (though not for the recent pronounced increase in short-term loans, shown in table 5).

What I do not understand is his sympathy for the liberalization of loans, given his judgment that "India is moving toward [the relevant] threshold... but is not there yet." It would be imprudent to heed the call for a firm 2- or 3-year roadmap to full capital account liberalization in his final paragraph unless one is convinced that India will get there in that time period.

The pronounced depreciation of the rupee that occurred between the conference of the National Council of Applied Economic Research (NCAER) and the finalization of this paper was reportedly in substantial measure caused by the difficulties Indian corporates found in rolling over the short-term foreign loans that had been taken to finance Indian FDI in the outside world. Given that they retain a residual right to seek rupee finance in the event of such difficulties materializing, it seems to me only prudent of the Indian authorities to continue to exercise exchange control over the foreign borrowing of Indian corporates. Such control should discriminate, and strongly, against short-term loans. Prasad says (in criticism of an article of mine) that this increase in external borrowing may have been driven by the desire of Indian corporations to speculate on further appreciation of the rupee. If that was indeed the case (which is possible though it is not obvious to me), it surely strengthens the argument for exerting control by the Reserve Bank of India (RBI). If India had already liberalized as he seems to want, then it would not be in the strong position that he applauds, with a debt composition that includes relatively few short-term loans. Let no one be in doubt: today India is liberalized (at least on the inward side) except with regard to loans, so that calls for capital account convertibility amount to pleas to liberalize loans.

It is doubtless true, as Prasad asserts, that it becomes increasingly less possible to control what instrument is held as countries develop and markets become more sophisticated. There will always be marginal actors who are prepared to bend the law because they can get away with it. This is a factor to bear in mind and feed into an appraisal of whether it is sensible to keep a law. But it does not in itself make an overwhelming case for abolishing laws. One needs also to recognize that most actors obey laws because they exist, and ask whether, given this fact, social welfare would be increased by abolition.

Partha Sen

Introductory Comments

India's integration in the world economy is recent. Trade flows and capital flows, as documented in Eswar Prasad's paper, have increased tremendously in the last two decades. While there are easy and incontrovertible measures of trade openness, measuring capital account openness is more tricky. As the paper documents, by most measures India's capital account is increasingly more open. But its relative position among other developing countries has not moved very much. Prasad points out that flows to India represent a small proportion of flows to non-industrial countries (usually well below 10 percent).

Capital inflows to India, which are relatively free of controls, have held its monetary policy hostage.¹ In order to prevent an appreciation of the exchange rates, the RBI has bought foreign exchange. In order to prevent the money supply from going up, as a consequence of this purchase of foreign exchange, the RBI has sterilized the inflows by selling government bonds in an open market operation. The fact that in spite of the RBI's efforts, there is an ever-increasing merchandise trade deficit, means that the policy is only partially successful. If the current account does not show a bigger deficit, it is due to invisibles and transfers. Are foreign exchange reserves that the RBI has accumulated "enough?" They are, if import financing is a concern. They are not, if capital flows are reversible (other than FDI).²

India's capital account remains more or less closed to outflows (for businesses, there has been some easing of restrictions in recent years, but not for households, though). Debt inflows are frowned upon but again in recent years, with the accumulation of reserves, there has been some tolerance of these.

As is well known, the RBI's policy of sterilized interventions implies a quasi-fiscal cost, in that the interest paid on government securities turns out to be larger than the interest earned on foreign exchange reserves (in a common currency). Before the recent meltdown, there was a call for the "securitization" of these reserves, a call that Prasad renews in this paper.

1. See Joshi and Sanyal (2005), Kletzer (2005), and Sen (2007) for details.

2. Prasad's discussion of foreign exchange reserves being greater than M2 is a red herring because there are legal restrictions on the convertibility of M2 components. This point is meaningful if there is full capital account convertibility.

Having taken us through the Indian data, Prasad goes back to argue for full capital account convertibility. This policy shift is to be effected not because of the traditional macroeconomic reasons—I discuss these later—but for “collateral benefits” that such a policy bestows. These include financial development and transparency and also making liberalization irreversible. I will ignore the last reason, which is really a right-wing conspiratorial one—given that probably a majority of mainstream economists do not embrace capital account convertibility, why would anyone outside Chicago or the International Monetary Fund (IMF) want to support this coup willingly?

When I first commented on this paper at the NCAER conference in July 2008, the global economy had just started to go into a tailspin. But it was not clear at that time what the effect on the international capital flows would be. I was critical of this paper’s case for a liberalization of their capital accounts by developing countries. I had drawn on the experiences of other developing countries to highlight what in my views were the potential pitfalls of such a move. Let me go over these again now that events have almost proved me prophetic (this does not happen very often!). But before turning to these arguments, it is important to realize that capital flows (other than to mining, trade credits, and so on, that have been around since the colonial era) to developing countries is a very recent phenomenon and consists of a few episodes—hence, not much (even less than usual) faith should be placed on cross-country regressions.

Capital Account Convertibility: Pros and Cons

Capital account convertibility means no legal restrictions on inflows or outflows of assets, that is, the domestic financial market is integrated with the international one. The international market would then price return and risk of all assets and liabilities. Given these asset prices and returns, flows would be determined. The potential gains from integration are well known, namely, consumption smoothing across time and states of nature (that is, risk sharing) and resources for investment augmentation (since a developing economy by definition is capital deficient). The experience of developing economies does not seem to square with this Arrow–Debreu dynamic general equilibrium view. Asset markets differ from goods markets and forcing the pace of liberalization of asset markets has often invited crises. There are agency problems, non-existent or “thin” markets, and so on. In short, there

are distortions galore, and therefore a move toward a more competitive environment is not necessarily Pareto-improving.

The problems faced by an economy trying to cope with inflows and outflows are different. It is widely known that capital inflows cause real appreciation, that is, these flows make the domestic economy's goods more expensive compared to the rest of the world—this is known as the “Dutch Disease.” This real appreciation occurs irrespective of whether the inflows consist of FDI, portfolio inflows, or bank lending. The real appreciation could cause a current account deficit big enough to put the liberalization process at risk.

In addition, if the host country's economy is not prepared with an adequate level of financial development then there could be pressure on the domestic financial sector resulting in a banking crisis (since in the early stages of development, bank lending constitutes a large proportion of the financial sector). The banking system, usually after years of financial repression, is geared toward financing of the government budget deficit. There may well be a macroeconomic crisis if the government's (monopoly) access to domestic savings is suddenly cut off.³

Lending to developing economies is subject to sudden reversals, that is, the tap of capital inflows is suddenly turned off due to events that are only remotely related to the recipient countries' policies. The Asian crisis of 1997 and the Latin American crisis of 1998 were good examples of this (that is, before the current crisis, which is more than just a capital account shock).⁴ Here is what happened to Latin America in 1998:

Russia's default in August 1998 ... represented a fatal blow for Latin America.... In tandem with the rest of emerging markets, interest rate spreads for LAC-7 rose from 450 basis points prior to the Russian crisis to 1,600 basis points in September 1998.... As a result, capital inflows to LAC-7 countries came to a Sudden Stop, falling from 100 billion dollars (or 5.5 percent of GDP) in the year ending in II-1998 prior to the Russian crisis, to 37 billion dollars (or 1.9 percent of GDP) one year later (N)on-FDI flows ... fell by 80 billion dollars during that period. After the initial blow, capital flows to LAC-7 suffered an additional blow after

3. There is of course the problem of moral hazard here. The financial sector, being the soft underbelly of capitalism, is full of instances of moral hazard and time inconsistency.

4. Total private capital flows fell from US\$ 176 b in 1996 to US\$ 70 b in 1997. Bank loans were the main reason for this decline—they fell from US\$ 113 b to US\$ 10 b (Williamson, 2001). Between 1997 and 1999, total private capital flows to Latin America fell from US\$ 108 b to US\$ 69 b. Bank loans fell from US\$ 46 b to US\$ 7 b, while portfolio investments fell from US\$ 13 b to US\$ 5 b over these years (Williamson, 2001).

the Argentine crisis in 2001 ... and, later, the ENRON scandal.... By the year ending in IV-2002 capital flows to LAC-7 were less than 10 billion dollars, back to the very low levels of the late 1980s. The Russian virus affected every major country in Latin America, with the exception of Mexico.... Even Chile, a country with very solid economic fundamentals—a track record of sound macroeconomic management, a highly praised and sustained process of structural and institutional reforms that completely transformed and modernized Chile’s economy, and an average rate of growth of 7.4 percent per year between 1985 and 1997, the highest growth rate in LAC-7—and tight controls on the inflows of foreign capital, experienced a sudden and severe interruption in capital inflows.... That a partial debt default in Russia, a country that represented less than 1 percent of world GDP and had no meaningful financial or trading ties with Latin America, could precipitate a financial contagion shock wave of such proportions, posed a puzzle for the profession. (Calvo and Talvi, 2005: 8–9)

In any case, there is now overwhelming evidence that capital flows from the developing countries to the developed ones (Prasad et al., 2007)—Prasad is one of the authors of the study! This flies in the face of traditional growth theory of the Solow–Ramsey type (or even endogenous growth theories). Some of the faster growing Asian economies have run current account surpluses (and exported capital) by maintaining undervalued real exchange rates (Japan, China, Taiwan, Singapore, and so on, come to mind—South Korea is an exception). The secret of an outward-oriented growth strategy is combining free trade with “mercantilism.”

Discussion and Conclusions

In conclusion, I remind the readers that Prasad acknowledges that the data do not support the traditional macroeconomic reasons for capital account convertibility. Thus the capital-deficient economies are net exporters of capital rather than net importers and there is no evidence of risk-sharing or total factor productivity (TFP) growth with openness either. Hence we have to resort to “the Lord works in mysterious ways” and argue for capital account openness for the “collateral” benefits. Even if these were true, we would need to trade off the macroeconomic downside of these policies with the presumed benefits. It is then all a matter of faith. His sales pitch reminds me of a Bengali story in which a doctor asks the patient if his symptoms include vomiting every morning. When the patient replies in the negative, the doctor assures him, “You do vomit but you don’t realize it.” Ditto for the benefits of capital account convertibility!

General Discussion

Surjit Bhalla expressed puzzlement as to why the financial integration variables, constructed quite intelligently, exhibited very, very weak relationship with growth, growth acceleration, or TFP growth. He also noted that if equity liability includes capital gains and its positive relationship to growth, it is likely to indicate a two-way causation: investors came in, thinking this was a good investment opportunity and it turned out to be right. Bhalla also raised the issue of the jump in the savings rate from 20 to 23 percent of GDP in the early 2000s to something like 35 to 37 percent by 2007–08. It needs to be investigated as to what caused this jump. Finally, Bhalla noted that we had not given enough attention to the political economy of inflows and outflows. The group that has been most opposed to opening up of Foreign Institutional Investor (FII) inflows into India consists of the major investment banks in the world, who derive a substantial amount of rent from the operations of the India's FII policy.

T. N. Srinivasan began by noting that Eswar Prasad had made a long presentation on why he did not find the expected benefit from capital account liberalization in the data. But if you have the wrong benchmark—a theory that lays out an expected benefit assuming a world of no other distortion whereas the distortions are actually present in the data—you do not learn much when you find the benefits are not there. All you have learnt is that there are distortions and these distortions are possibly preventing the benefits predicted in the first-best equilibrium from being realized. Srinivasan did not think this was a useful way of thinking at all about the capital account liberalization.

Regarding growth, Srinivasan said one could think in terms of its standard sources: accumulation, efficiency of resource allocation across time and sectors, and TFP. In each of these dimensions, there is a problem. Take capital accumulation. Looking at the aggregate savings and investment in India does not tell you that more than 50 percent or 55 percent of personal savings is the direct savings by the household in the form of physical assets and does not go through the financial intermediation at all. This is the world of savings, investments, and financing, that is India. In this context, focusing on the international integration through the capital market does not seem to me to be a useful exercise.

Srinivasan concluded by stating that Prasad had a sensible argument on capital account liberalization. In the first-best world, capital account liberalization would yield benefits, but because of second-best considerations those benefits are not being realized. How does setting a date for capital

account liberalization help? That helps by more credibly addressing the threshold effect and the domestic distortion problems than you would otherwise do. That is the benefit from pre-announced date for integrating India fully with the international capital market.

Abhijit Banerjee expressed sympathy for the general framework underlying the author's work and added that many years ago he had co-authored a series of papers with precisely the predictions documented by Prasad. He noted, however, that our understanding of thresholds remained very incomplete. Specifically, threshold is likely to differ according to who the borrowers are. If it is a small number of large corporations that are going to borrow short term, the threshold will likely be different than if it is a large number of small entrepreneurs. Banerjee said we did not have a model that actually captures these differences and says something useful about whether we are close to the threshold or far from it. At some point, we will have to bite the bullet and jump in, but it does not seem to be that research-wise we are anywhere close to it.

In response, Eswar Prasad noted that there was clearly a disagreement on the issue of capital account convertibility. What he had done was to let the data speak for themselves. Srinivasan had argued that we should not use the neoclassical model because data did not seem to validate it. But in fact, the model has powerful implications in terms of how large the welfare benefit should be. So, it is a useful benchmark to check whether data agree. Here again, there are perplexing results. A model that seems entirely reasonable in a variety of dimensions and yields very strong predictions does not work in practice. We try to understand why it does not work. In that sense, it is still going to be productive.

Prasad further noted that in his view, capital account liberalization had more to do with getting other policies right than the capital inflows themselves. Whether or not you get large amounts of capital is immaterial. The financial system is ultimately going to greatly influence growth and welfare outcomes. On the flip side, capital controls end up serving as an illusion to protect a set of distortionary policies. In the case of China, for instance, the capital controls were kept in place to support such policies as managed exchange rate and financial repression. The problem is, viewing capital controls as essentially providing room is becoming increasingly untenable not just in the context of India but every other emerging market economy.

Responding to the comment by John Williamson that he had made wild and unsubstantiated assertions, Prasad stated that he had summarized a large volume of research in the paper. So, many statements had been drawn from elsewhere. Much of what has been stated in the paper is in fact based on fair

amount of research. It is not just an article of faith that financial integration is good for financial development. There are good theoretical reasons why it should be so. Specifically, in the context of banking reforms, why the entry of foreign banks should improve the efficiency of domestic banking system? If you look carefully at the micro data and not just the macro data, you can trace out some of the channels of efficiency gains.

In concluding, Prasad stated that the political economy factors were critical in thinking about liberalization of both inflows and outflows. This is where capital account liberalization program made a lot of sense. It could help in making a progress, not in terms of getting more capital inflows but in terms of providing a framework for other reforms.

Shankar Acharya began by noting that he was in the Williamson–Bhagwati camp, which advocated that capital account liberalization was good so long as liberalization was limited to FDI or portfolio flows. It is probably bad if you are doing too much of it, especially on debt flows. He pointed out that Prasad was not pursuing what his data were throwing up. To some degree, disaggregation was the name of the game. Whether you were seeking the benefits from an institutional point of view, a political economy point of view, or whatever, one could argue, a lot of these could be gotten while maintaining controls on external debt.

Acharya went on to push the argument a little further. We must ask if the existing level of capital account convertibility in India is too little or too much. When it comes to debt, for example, there may have been premature liberalization on what Indians like to call “external commercial borrowings,” which essentially allow Indian corporations to borrow abroad. In the last couple of years, high levels of these borrowings have probably exacerbated the underlying problem of foreign capital surge and engendered a temporary “Dutch disease” problem leading to excessive exchange rate appreciation. Acharya concluded by reminding that the world was facing a credit crunch; the huge energy price shock had led to a large current account deficit of 3.5 to 4 percent of GDP and fiscal deficit had shot up to 8 to 10 percent range. In that context, he asked, was it prudent to pursue a lot of capital account liberalization and if so, why?

Concurring with Acharya, Barry Bosworth said that there seems agreement that FDI is good. Evidence seems overwhelming that on the average, equity investment has been a positive force. As John Williamson said, however, it is the debt that poses a question mark. But it is more than debt, other assets, and other liabilities. The biggest thing we need here is lot of disaggregation. Capital account convertibility is not a meaningful term.

Bosworth went on to add that the paper also provides useful data. In table 3 of the paper, the author decomposes recent reserve buildup into various sources, which was very informative. In table 6, the author provides India's international investment position. It shows that a very large part of capital inflows are offset by reserves buildup. This seems to be a strange bargain. Foreigners are coming to this economy, I would think, looking to the available turn, somewhere between 10 and 20 percent a year. On the other side, two-thirds of that money that comes in, gets offset by the central bank investing in something that does not appear to be earning more than about 3 to 4 percent in real return. This seems to be a costly strategy in the long run.

Suman Bery observed that it was interesting that we paid a lot of attention to crises and perhaps rightly so. Crises have marred the experience of Latin America and to some extent, Eastern Europe. But there has been relatively smooth integration of much of Southern Europe into global financial system. One wonders what is it that they had and they got right and India lacks. We may think of sophistication of financial system as the factor but it is doubtful. Equally, historically, India was an economy with an open capital account, until Independence. So it is not as though capital account liberalization is unknown to India. Therefore, the key factor would seem to be lots and lots of other distortions in the economy that we do not think that the politicians are ready to give up.

Reacting to the comment by Barry Bosworth, John Williamson said that capital account convertibility implied that all capital flows were convertible. That is the reason he had said that capital account convertibility in India now was a question about liberalizing debt flows. Is debt convertibility dangerous? The experience of Indonesia suggested so. Indonesia had lot of foreign denominated corporate debt and all the debtors ran for cover when the crisis broke. That is what led to crisis in Indonesia.

Turning to the issue of threshold, Williamson said this was not just the question of Indian attitudes and policies. There is a tendency in India to think that if you suggest that India has not yet reached the threshold, you are saying something about India. When the Chileans discussed this in the early 1990s, they did not think this was a question of the Chilean attitude. Chileans talked about the attitude of capital market toward them: Would the capital markets continue to lend them if there were a crisis, particularly, if there were a big fall in the price of copper. It seems India has to face the same problem. India may have its act completely together, but as long as it is not completely trusted by the rest of the world, capital account convertibility would be premature.

Anne Krueger observed that the distinction between debt and equity in practice was not as sharp as it is in theory. It is altogether possible to sell shares abroad with the promise to buy them back a year later at an agreed-upon price. Such a transaction would appear to be equity sale abroad but is effectively a debt inflow. This actually happened in Mexico. There was a lot of selling of equity so to speak but with the promise to buy, it was nothing but debt inflow. On the Mexican side, it was recorded as equity and not debt. You have to recognize that you cannot always keep the two baskets entirely separate.

Krueger also noted her discomfort with the idea that as long as debt was held within the domestic banking system, the country was safe. There would seem to be real risks of such an approach. Krueger stated that if she had to choose between a foreign exchange crisis and domestic banking crisis, she would choose the former.

In his final response, Eswar Prasad noted that there seemed general agreement that short-term foreign currency denominated borrowing by government was bad. It is true that if you look at the growth outcomes, foreign currency denominated debt seems to have many of the perverse effects. But we are in a very different world now and things have fundamentally changed in a variety of ways. It is not that the countries did not recognize that debt was not such a great thing. But it was all they could get and it was used to finance things like consumption boom. But now that countries are able to get FDI and portfolio equity inflows, they want more of those. Even countries that used to have difficulty in getting any money are now able to even issue domestic currency denominated bonds.

But if you think about where the vulnerability in the system lies, it is very likely to come from the domestic financial system. Equally, efficient financial intermediation can help long-term economic growth. That makes capital account liberalization important in an indirect way. China offers a very specific example. There are some parallels to India and some differences. In China, the financial system already needs to be reformed. But they are trying to do it essentially with one hand tied behind their backs because they have a managed exchange rate. So, they do not have an independent monetary policy: they cannot use the interest rate instrument to guide credit growth or investment growth. So, they go back to the usual way of controlling the banks, namely, picking up phone from the central bank and calling big state commercial banks to tell them what to do. Ultimately, this is not quite the right way to proceed with financial system reforms. A lot of risks get embedded in the financial system and that is where the real vulnerabilities

are likely arise, in both China and to a lesser extent in India. This is where capital account liberalization can be helpful.

The key policy issue, noted Prasad, still is whether India should open the doors to unfettered capital flows immediately. If you were to wait for the optimal moment to undertake capital account liberalization, it is never going to happen. But the broader issue is that we need some sort of timetable rather than making specific comments about whether we should start it today or two months from now. Does that mean that we need to throw open the capital account tomorrow or day after? The answer is in the negative because we do not have the institutional mechanism in place. If we had a more open capital account, slightly more normal exchange rate volatility in the short run, currency derivatives in the markets that could help people hedge some of the risks, it would be a different story. So we need to develop some of these instruments and institutional mechanisms. This is not something that can happen overnight.

References

- Aizenman, Joshua, Brian Pinto, and Arthur Radziwill. 2007. "Sources for Financing Domestic Capital—Is Foreign Saving a Viable Option for Developing Countries?" *Journal of International Money and Finance* 26 (5): 682–702.
- Bekaert, Geert and Campbell R. Harvey. 2000. "Foreign Speculators and Emerging Equity Markets." *Journal of Finance* 55 (2): 565–613.
- Bekaert, Geert, Campbell R. Harvey and Christian Lundblad. 2005. "Does Financial Liberalization Spur Growth?" *Journal of Financial Economics* 77 (1): 3–55.
- Bery, Suman and Kanhaiya Singh. 2006. "Domestic Financial Liberalization and International Financial Integration: An Indian Perspective." In *China and India: Learning from Each Other*, edited by Jahangir Aziz, Eswar Prasad, and Steven Dunaway, pp. 145–80. International Monetary Fund.
- Bhagwati, Jagdish. 1998. "The Capital Myth: The Difference between Trade in Widgets and Trade in Dollars." *Foreign Affairs* 77: 7–12
- Bhalla, Surjit S. 2007. *Second Among Equals: The Middle Class Kingdoms of India and China*. Peterson Institute of International Economics.
- Bosworth, Barry and Susan M. Collins. 2008. "Accounting for Growth: Comparing China and India." *Journal of Economic Perspectives* 22 (1): 45–66.
- Calvo, G.A. and Talvi. 2005. "Sudden Stop, Financial Factors and Argentina and Chile," Working Paper 1115, National Bureau of Economic Research.
- Chinn, Menzie and Hiro Ito. 2006. "What Matters for Financial Development? Capital Controls, Institutions and Interactions." *Journal of Development Economics* 81 (1): 163–92.
- Claessens, Stijn, Aslı Demirgüç-Kunt, and Harry Huizinga. 2001. "How Does Foreign Entry Affect Domestic Banking Markets?" *Journal of Banking and Finance* 25 (5): 891–911.
- Desai, Padma. 2003. *Financial Crisis, Contagion, and Containment: From Asia to Argentina*. Princeton, NJ: Princeton University Press.
- Edwards, Sebastian. 2007. "Capital Controls, Sudden Stops and Current Account Reversals." In *International Capital Flows*, edited by Sebastian Edwards. University of Chicago Press: Chicago.
- Eichengreen, Barry. 2007. "The Cautious Case for Capital Flows." Paper presented to Rating Agency Malaysia's conference on "Free Capital Mobility: What's in Store for Asia?" held in Singapore, August 1.
- Forbes, Kristin J. 2007. "The Microeconomic Evidence on Capital Controls: No Free Lunch." In *International Capital Flows*, edited by Sebastian Edwards. Chicago, USA: University of Chicago Press.
- Frankel, Jeffrey and Eduardo A. Cavallo. 2004. "Does Openness to Trade Make Countries More Vulnerable to Sudden Stops or Less? Using Gravity to Establish Causality." NBER Working Paper 10957.
- Goldberg, Linda. 2004. "Financial-Sector Foreign Direct Investment and Host Countries: New and Old Lessons." NBER Working Paper 10441.

- Gourinchas, Pierre-Olivier and Olivier Jeanne. 2007. "Capital Flows to Developing Countries: The Allocation Puzzle." NBER Working Paper 13602.
- Henry, Peter B. 2000. "Stock Market Liberalization, Economic Reform, and Emerging Market Equity Prices." *Journal of Finance* 55 (2): 529–64.
- Jeanne, Olivier. 2007. "International Reserves in Emerging Market Countries: Too Much of a Good Thing?" *Brookings Papers on Economic Activity* 2001 (1): 1–80.
- Joshi, V. and S. Sanyal. 2005. "Foreign Inflows and Macroeconomic Policy in India." In *India Policy Forum*, vol. 1, pp. 135–179.
- Kaminsky, Graciela, Carmen M. Reinhart, and Carlos A. Vegh. 2004. "When It Rains, It Pours: Procyclical Capital Flows and Macroeconomic Policies." *NBER Macroeconomics Annual 2004*, National Bureau of Economic Research (NBER).
- Kletzer, K. 2005. "Liberalizing Capital Flows in India: Financial Repression, Macroeconomic Policy and Gradual Reform," *India Policy Forum*, vol. 1, 227–63.
- Kletzer, Kenneth M. 2004. "Liberalizing Capital Flows in India: Financial Repression, Macroeconomic Policy, and Gradual Reforms." In *India Policy Forum 2004*, edited by Suman Bery, Barry Bosworth, and Arvind Panagariya, pp. 227–63. Brookings Institution Press and NCAER: New Delhi.
- Kose, M. Ayhan, Eswar Prasad, Kenneth Rogoff, and Shang-Jin Wei. 2006. "Financial Globalization: A Reappraisal." NBER Working Paper 12484. Forthcoming in *IMF Staff Papers*.
- . 2008. "Financial Globalization and Economic Policies." Forthcoming in *Handbook of Development Economics*, edited by Dani Rodrik and Mark Rosenzweig.
- Kose, M. Ayhan, Eswar Prasad, and Marco Terrones. 2007. "How Does Financial Globalization Affect Risk Sharing? Patterns and Channels." Forthcoming in *Journal of Development Economics*.
- Kose, M. Ayhan, Eswar Prasad, and Ashley Taylor. 2008a. "Thresholds in the Process of Financial Integration." Manuscript, IMF and Cornell University.
- Kose, M. Ayhan, Eswar Prasad, and Marco Terrones. 2008b. "Does Openness to International Financial Flows Contribute to Productivity Growth." Manuscript, IMF and Cornell University.
- Krueger, Anne O. and Jungho Yoo. 2002. "Chaebol Capitalism and the Currency-Financial Crisis in Korea." In *Preventing Currency Crises in Emerging Markets*, edited by Sebastian Edwards and Jeffrey Frankel, pp. 461–501. Chicago: University of Chicago Press.
- Lane, Philip R. and Gian Maria Milesi-Ferretti. 2007. "The External Wealth of Nations Mark II: Revised and Extended Estimates of Foreign Assets and Liabilities, 1970–2004." *Journal of International Economics* 73 (2): 223–50.
- Miniane, J. 2004. "A New Set of Measures on Capital Account Restrictions," *IMF Staff Papers* 51 (2).
- Mishkin, Frederick. 2006. *The Next Great Globalization: How Disadvantaged Nations Can Harness Their Financial Systems to Get Rich*. Princeton, NJ: Princeton University Press.

- Mohan, Rakesh. 2007. "Recent Financial Market Developments and Implications for Monetary Policy." Valedictory Address at IIF's Inaugural Asia Regional Economic Forum on September 20.
- . 2008. "Capital Flows to India." Paper presented at annual meeting of Deputy Governors at BIS, February. New Delhi: Reserve Bank of India.
- Mukerji, Purba. 2009. "Ready for Capital Account Convertibility." Forthcoming. In *Journal of International Money and Finance*.
- Obstfeld, Maurice, Jay C. Shambaugh, and Alan M. Taylor. 2008. "Financial Stability, the Trilemma, and International Reserves." CEPR Discussion Papers 6693.
- Panagariya, Arvind. 2008. *India: The Emerging Giant*. USA: Oxford University Press.
- Patnaik, Ila and Ajay Shah. 2008. "Managing Capital Flows: The Case of India." NIPFP Working Paper 2008–52.
- Prasad, E., R. Rajan, and A. Subramanian. 2007. "Foreign Capital and Economic Growth." *Brooking Papers on Economic Activity* (1): 153–230.
- Prasad, Eswar. 2008. "Is China's Growth Miracle Built to Last?" IZA Discussion Paper 2995. Forthcoming in *China Economic Review*.
- Prasad, Eswar, Raghuram Rajan, and Arvind Subramanian. 2007. "Foreign Capital and Economic Growth." *Brookings Papers on Economic Activity*, 2007 (1): 153–230.
- Prasad, Eswar and Raghuram Rajan. 2008. "A Pragmatic Approach to Capital Account Liberalization." *Journal of Economic Perspectives* 22 (3): 149–172.
- Prasad, Eswar and Shang-Jin Wei. 2007. "The Chinese Approach to Capital Inflows: Patterns and Possible Explanations." In *Capital Controls and Capital Flows in Emerging Economies: Policies, Practices, and Consequences*, edited by Sebastian Edwards. Chicago: University of Chicago Press.
- Rajan, Raghuram and Luigi Zingales. 2003. "The Great Reversals: The Politics of Financial Development in the 20th Century." *Journal of Financial Economics* 69: 5–50.
- Reddy, Yaga V. 2005. "Overcoming Challenges in a Globalising Economy: Managing India's External Sector," Lecture delivered at the Foreign Policy Center, London, on June 23.
- . "Converting a Tiger." *Finance & Development* 44 (1): 20–23.
- Report of the Committee on Fuller Capital Account Convertibility (S.S. Tarapore Committee). 2006. Available online at www.rbi.org.in/scripts/PublicationReportDetails.aspx?UrlPage=&ID=468.
- Report of the Committee on Fuller Capital Account Convertibility (Chairman: S.S. Tarapore). 1997. Available online at www.rbi.org.in/scripts/PublicationReportDetails.aspx?UrlPage=&ID=169.
- Report of the High Level Committee on Financial Sector Reforms (Raghuram Rajan Committee). 2008. Available online at http://planningcommission.nic.in/reports/genrep/report_fr.htm.

- Report on Making Mumbai an International Financial Center (Percy Mistry Committee). 2007. Available online at <http://finmin.nic.in/reports/index.html>.
- Rodrik, Dani. 1998. "Who Needs Capital-Account Convertibility?" *Essays in International Finance 207*. Princeton, New Jersey: Princeton University.
- . 2007. "The Real Exchange Rate and Economic Growth: Theory and Evidence." Manuscript, Kennedy School of Government, Harvard University.
- Rodrik, Dani and Arvind Subramanian. 2008. "Why Did Financial Globalization Disappoint?" Manuscript, Harvard University. Forthcoming in *IMF Staff Papers*.
- Rose, Andrew. 2007. "A Stable International System Emerges: Bretton Woods, Reversed." *Journal of International Money and Finance* 26 (5): 663–81.
- Sen, P. 2007. "Capital Inflows, Financial Repression and Macroeconomic Policy in India since the Reforms." *Oxford Review of Economic Policy* 23: 292–310.
- Shah, Ajay. 2008. "New Issues in Indian Macro Policy." Forthcoming in *Business Standard India, 2008*, edited by T. N. Ninan. (Business Standard Books).
- Schindler, M. 2009. "Measuring Financial Integration: A New Dataset." *IMF Staff Papers*, 56, pp. 222–38.
- Subramanian, Arvind. 2007. "Capital Account Convertibility: A Neglected Consideration," *Economic and Political Weekly*, June.
- Williamson, J. 2001. "Issues Regarding the Composition of Capital Flows." *Development Policy Review* 19: 11–29.
- . 2006. "Why Capital Account Convertibility in India Is Premature." *Economic and Political Weekly* 13 (May): 1848–50.